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Klondike Gold Rush
National Historical Park

The Chilkoot Trail

Cultural Landscape Report for the Chilkoot Trail Historic Corridor

Part 1: History, Existing Conditions, & Analysis



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Produced by the Cultural Landscapes Program, Alaska,
in cooperation with Klondike Gold Rush National Historical Park.
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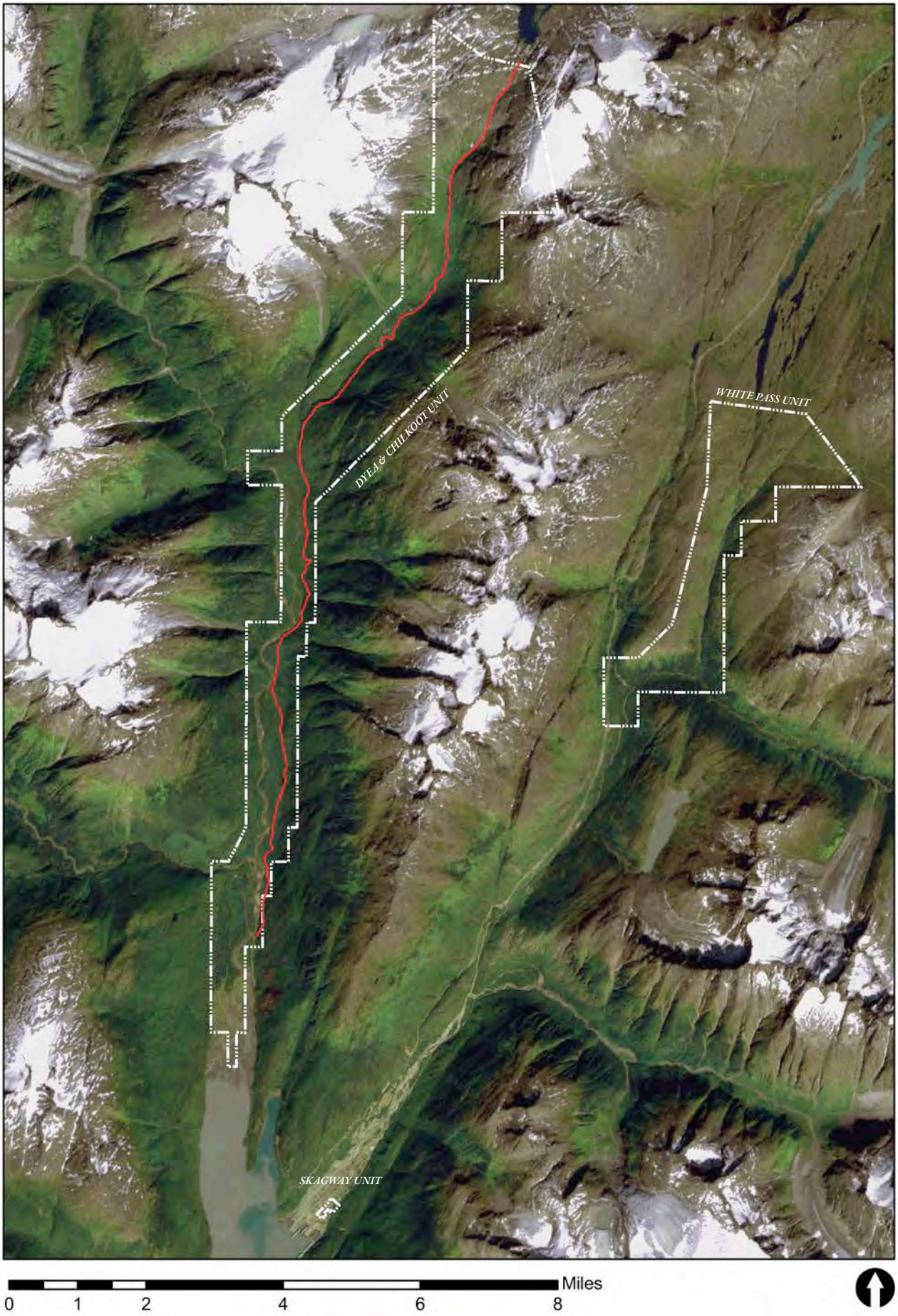
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CHAPTER 1: INTRODUCTION

Klondike Gold Rush National Historical Park Unit Map

Map 1



CHAPTER ONE: INTRODUCTION

During the last great American gold rush—the Klondike Stampede of 1897-98—thousands of hopeful prospectors headed overland to the Yukon Territory to make their fortune. After disembarking at the hastily constructed gateway town of Dyea, the Stampeders headed to the interior by the Chilkoot Trail, a trading route originally controlled by the Chilkoot Tlingit. As a result of the Canadian government's mandate that all travelers needed to bring one-year's worth of supplies into Canada, the Chilkoot Trail became a heavily traveled and engineered industrial corridor. Horse pack trails, bridges, wagon roads, aerial tramways, utility lines (telephone and electric) were layered upon the older Tlingit foot trail. In some cases, the "trail" itself was a braid of co-existing paths, which included the frozen riverbed in the winter months.

Historically a trade link between the coastal Tlingit and interior Athabaskan Indians and crucial to the trade network involved in the mid-late 19th century Western fur industry, the trail's location and strategic importance was the key factor in revealing the region's immense resource potential. The Chilkoot Trail's function as one of only three year-round passages to the Canadian interior assured its preeminence as a primary entryway for explorers, pioneers, and prospectors in the last quarter of the nineteenth century, including the spectacular Klondike Gold Rush. As a "boomtown" route, the trail flourished briefly until the opening of the White Pass and Yukon Route railway in neighboring Skagway in 1899 offered passage to the interior without the arduous physical demands. After the Gold Rush, the more commercial features of the trail landscape—camp towns, tramways, utility infrastructure—were abandoned, with some of the equipment being sold or salvaged and removed from the trail. However, significant remains of this historic period remain along the course of the trail, arguably one of the longest surviving linear archeological landscapes in the United States.

Only a handful of travelers used the Chilkoot Trail in the decades after the Gold Rush until the 1960s, when in response to public interest, the State of Alaska sent a construction crew to survey an alignment of the original route for use as a recreational trail. The majority of the current trail dates to this later period, but with the adaptive reuse of some portions of the historic tread, notably between Canyon City and Pleasant Camp, Sheep Camp to Stone House, as well as the pass area, especially between Mile 14.75 and the Canadian border (16.0). Nearly 4,000 hikers now annually hike the trail.. After the State of Alaska's construction of a recreational trail between1961-1968, (largely the area between the current trailhead and Sheep Camp), the National Park Service entered into Memorandum of Agreement with the State of Alaska and the Bureau of Land Management for managing the lands within the trail corridor in 1972.

The historic use of the Chilkoot Trail during the Klondike Gold Rush was memorialized in the creation of the Klondike Gold Rush National Historical Park in 1976, a four-unit park comprised of the Dyea and Chilkoot, Skagway, White Pass, and Seattle units. Though the least visited of the units, the Chilkoot Trail is perhaps the most familiar emblem of the Klondike Gold Rush with its enduring image of thousands of struggling Stampeders lined up along the "Golden Stairs" to the pass's snowy summit. The Chilkoot Trail was placed on the National Register of Historic Places in 1975, and in 1978 was listed as a National Historic Landmark, "Chilkoot Trail and Dyea." In 1998, an updated NHL nomination was approved. In 1991, the entire Klondike Gold Rush National Historical Park was placed on the National Register, including the Chilkoot Trail and Dyea Unit.

Purpose of Project

As a cultural landscape, the Chilkoot Trail represents essentially a 16 mile-long archeological zone that is open for recreational use.[1] The challenges for resource protection are pressing; after decades of maintenance as a recreational trail, the resources dating to the period of significance have, in some cases, completely disappeared, while others are in danger of losing their integrity as historic resources. The purpose of this CLR is to identify, document, and assess the historic character of the Chilkoot Trail as it existed before, during, and after the period of significance (1880-1900). In doing so, it will expand the historical context for the cultural landscape to include the pre-existing native trail at Euro-American contact, and the development of the recreational trail in a commemorative setting between 1961 and the present. It will also provide a baseline of existing conditions recorded in field seasons 2000-2003, 2005 and 2008.

The Cultural Landscape Report (CLR) serves two important functions: 1) it is the principle treatment document for cultural landscapes, and 2) is the primary tool for long-term management of those landscapes as cultural resources. CLRs establish preservation goals for a cultural landscape by clearly identifying the landscape characteristics and features, values, and associations that make a landscape historically significant. Through research and documentation, the CLR, Part I characterizes the degrees of change within the evolution of a particular landscape. The current project, the *Chilkoot Trail Corridor CLR, Part I,* will also define management zones that will be further articulated and addressed in the subsequent CLR, Part II.

In order to provide for the appropriate cultural resource management of these historic landscapes, Cultural Landscape Reports are integrally linked to other planning documents such as the Statement for Management, General Management Plan, Site Development Plan (SDP), Land Protection Plan, and Design and Treatment Plan (formerly DCP). This is particularly critical in the case of the Chilkoot Trail, which is located within the boundaries of a National Historic Landmark, a designation which ranks it among the top four percent of recognized historic properties (on the National Register of Historic Places) in the United States.

Existing Planning and Management Documents

Klondike Gold Rush National Historical Park has several planning and management documents which address the Chilkoot Trail. Although not all identify it as a cultural landscape, the cultural resource context for the Trail has been well established. These include the *Proposed Klondike Gold Rush National Historical Park: Historic Resource Study* (Bearss, 1970); *Historic Structures and Sites: Dyea and the Chilkoot Trail* (Norris & Taylor, 1985), *Cultural Landscape Recommendations, Chilkoot Trail, Klondike Gold Rush NHP*, (Gilbert, 1989); *Klondike Gold Rush National Historical Park Resource Management Plan* (NPS, 2000), and *General Management Plan (GMP), Development Concept Plan (DCP) and Environmental Impact Statement (EIS)* (NPS, 1996), all of which provide recommendations for the treatment and management of the Chilkoot Trail.

Other sources of information not reviewed in this summary include *Chilkoot Trail Design Guidelines*, (Snow, 1987), documented design work for the four Chilkoot Trail shelters, and narratives included in Sec. 106 Compliance documents from 1990-2004.[2]

The 1970 *Proposed Klondike Gold Rush National Historical Park: Historic Resource Study* (HRS) was the first, and subsequently, the most comprehensive, documentation of the historic resource context of the trail. Relying on eyewitness descriptions in newspaper articles from the *Seattle Post-Intelligencer* and the *Dyea Trail*, other first-person histories, and later analysis in historical accounts, Bearss described the condition of the Chilkoot Trail in 1897. Tracing the trail from Dyea to the Summit, Bearss detailed 1897 Dyea; Finnigan's Point; the trail between that point to the head of navigation, then through the canyon (he does not mention Canyon City); the trail to Sheep Camp and the settlement,

itself; and finally the trail to Stone House and up the summit. In a following chapter, he re-described the 1898 Chilkoot Trail, elaborating on the wharves, the tramway systems, and again, included first-hand accounts from that period.[3]

In his analysis, Bearss noted that between 40 and 50 percent of the Chilkoot Trail as it was flagged and cleared by the Alaska Division of Lands in the 1960s failed to follow the historic route.[4] He recommended that NPS legislative efforts to establish the park "make certain that the land authorized for acquisition is historic and not the trail as blazed today."[5] Further recommendations from Bearss called for land acquisitions that included all the existing remains at Canyon City and Sheep Camp, and the land between the trail and watersheds immediately to the east and west from Stone House to the Summit.[6]

The document *Historic Structures and Sites: Dyea and the Chilkoot Trail* (1985-86) by Frank Norris and Carol Taylor, provided historical information regarding the Kinney Bridge, Hosford Sawmill Complex, Finnegan's Point, Canyon City, Pleasant Camp, Sheep Camp, Stone House, the avalanche site, and the Scales. Along with the historical background, Norris included archeological findings and descriptions of current conditions for each of these specific sites and along the trail in general (e.g., tramway and telephone lines). Carol Taylor's draft drawings show tramway systems in plan, elevation, and section—although they are incomplete.[7]

The first park planning document to specifically address the Chilkoot Trail as a cultural landscape was the draft report, *Cultural Landscape Recommendations*, written as a trip summary after a September 7-10, 1989 field survey by historical landscape architect, Cathy Gilbert, historical architect, Steve Peterson, and park cultural resource specialist, Karl Gurcke. Gilbert's draft recommendations were organized into four primary categories: General Management Objectives, The Physical Environment (natural features and resources), The Built Environment, and Contemporary Issues (integrating contemporary use of the trail with preservation of historic resources).

As an overview document, this draft report provided the park with its first assessment of the trail as a landscape within the parameters of cultural resource management, rather than maintenance as a recreational resource. As an example of its impact, several campgrounds were relocated to sites away from the historic camps, which were designated as archeological zones for protection.[8]

The parks' *Resource Management Plan* (RMP, 1994; revised, 2000) documented the natural and cultural resources, serving as a guide for their protection, management, and maintenance.[9] With respect to the Chilkoot Trail, the emphasis was on the rich archeological character of the trail, and the threats to existing resources, both known and those unsurveyed. Based on a 1979 archeological survey, *Inventory of Cultural Resources in the Chilkoot and White Pass Units of Klondike Gold Rush National Historical Park*, the RMP identified a number of sites of archeological significance:

- Dyea Townsite
- Chilkoot Trail
- Kinney Bridge
- Syrup Can Site
- Hosford Sawmill (1948-56)
- Dyea-Canyon City Wagon Road
- Finnegan's Point
- Dyea-Bennett Telephone Line
- Canyon City
- Chilkoot Railroad and Transport Co. (CR&T) Tramway
- Pleasant Camp
- Sheep Camp
- Stone House
- Palm Sunday Avalanche Site
- Alaska Railroad and Transportation Co. (AR&T) Tramway, Dyea-Klondike Transportation Co. (DKT) Tramway
- Scales
- Golden Stairs
- Peterson Pass
- The Summit[10]
- Dyea Shell Midden (prehistoric)
- DKT Wharf Site and Wagon Road
- Mawville site (between Pleasant Camp and Sheep Camp)

- Morris Choynski's isolated grave (just north of Sheep Camp)
- Archie Burns' Surface Tramway (includes Horse Whim)
- Motorized Hoist Machinery (gasoline engine on sled)
- Knockdown boats.[11]

The RMP identified threats to the archeological resources, the most important of which were from the Taiya River and stream erosion—particularly seasonal flooding—to the four main occupation centers along the Trail: Finnegan's Point, Canyon City, Pleasant Camp, and Sheep Camp. Other threats listed were potential development of inholdings, vandalism/looting of artifacts, and environmental degradation due to climactic conditions.

The RMP revision (2000) elaborated upon the information presented in the park's *General Management Plan* (1996), the most significant of which were to develop and follow a comprehensive approach to the management of the park's varied cultural resources, continue to examine the cultural components of Dyea and the Chilkoot Trail, and expand historic and archeological investigations from a compliance orientation to one of inventory and research.[12] Both of these documents identified the Chilkoot Trail as a cultural landscape, and the RMP recommended that a Cultural Landscape Report be undertaken.

Of critical importance to the Cultural Landscape Report, the GMP concluded that the preservation of the historic Chilkoot Trail required an understanding of the historic trail routes, associated settlements, and "systems" that grew up along the trail. As a result, the GMP stated that "The Chilkoot Trail is a historic trail first and a recreational trail second."[13] Emphasis placed on understanding the historic landscape and historic precedence of the trail experience "will anchor decisions regarding development, use, construction, and day-to-day maintenance of the trail in its history and will reinforce the historic trail use."[14]

Although not referred to specifically as Cultural Landscape Report, or Treatment Plan, the GMP called for a protection plan for the entire trail to be completed in cooperation with the state of Alaska and the municipality of Skagway for stabilization work, and specifically mentioned identification of historic trail segments at their intersections with the current recreational trail. The development of historic landscape management guidelines would include vegetation management, criteria for selecting historical views or viewsheds, guidelines for locating the recreational trail on or near the historic route, and criteria to determine when natural processes are manipulated to preserve the cultural scene.[15] With respect to the realignment of the trail to its "historic route," the GMP stated that "the historic alignment would intrude on private land and the expense of maintaining several additional bridges over the Taiya River that would be required to follow the original alignment, would be prohibitive."[16]

The issue of land ownership along the Chilkoot Trail was discussed by the NPS before the Park was established, and continues to the present time. The GMP concluded that the NPS needed to acquire all state land within the park boundary in order to secure long-term protection of the historic scene and cultural and natural resources of the park, including the need to protect park assets such as bridges, buildings, and research areas. The current Memorandum of Understanding (MOU) with the state of Alaska for NPS management of state lands in the Chilkoot Trail unit, including the Dyea area, was renegotiated in 1990 for a fifteen-year period. The 1991 Land Protection Plan (LPP) established priorities for acquisition of state and privately owned lands within the park boundary and along the Chilkoot Trail as a number one priority for fee simple acquisition by the federal government.[17]

Specific GMP objectives for park management of the Chilkoot Trail were to maintain limited facilities along the Chilkoot Trail (shelters, camping areas, and interpretive kiosks), and continue a management presence to serve recreational users and to protect the remnant townsites and resources along the trail.[18] Specific recommendations based on increased public and commercial use of the Trail for resource protection included:



Hikers resting before the ascent of the 'Golden Stairs' over the Chilkoot Pass, 2003. NPS Cultural Landscapes Program, Alaska.

- Replacement of the two state-owned warming cabins at Canyon City and Sheep Camp with shelters similar to those recently placed along the trail. Four temporary shelters at Finnegan's Point, Pleasant Camp, and two near Sheep Camp (constructed in 1993) have raised questions regarding the amount of public support for shelters, how many are needed, location, style, season of use, use of wood stoves, and management under a concessions permit.
- Prevent vandalism and burning of cultural resources
- Revising commercial operators use of trail (including helicopter overflights and associated noise)
- Development of a backcountry management plan
- Create multilingual interpretive media.[19]

Published as part of the GMP, the *Development Concept Plan* (DCP) documented existing conditions and proposed improvements, presented in both narrative and graphic formats. Proposals for the Chilkoot Trail related to cultural landscape planning and treatment were historical structures protection, marking historic trail segments on the existing trail, developing site plans for each tent camping area, maintaining all bridges & trails for basic public safety and resource protection, providing a safety cache at "The Scales" area, and adding group camp sites at Canyon City and Sheep Camp.[20]



Courtney's Store and Post Office, Sheep Camp AK, c. 1898. Stereographic Library Collection, UAF-75-178-16, Alaska and Polar Regions Collections, Rasmuson Library, University of Alaska Fairbanks.

Historical Overview

Sources

Due to the wealth of cultural resource information synthesized from primary source materials by NPS historians Bearss, Spude, and Norris in their respective publications, the site history relies heavily on these secondary sources. However, new documents—such as the materials located in the Knox Collection at the University of Alaska-Anchorage, the Chilkoot Trail files collection at the Division of Natural Resources, State of Alaska (Juneau), and a report prepared for this CLR, "Chilkoot Trail Bridges Construction History" written by former trail crew chief, Jerry Watson, added significantly to the history of the contemporary trail.

Historic Periods

Three historic periods are represented in this Cultural Landscape Report:

- The Tlingit Trail and Euro-American Contact to 1887
- Klondike Gold Rush, 1897-1898
- Abandonment, "Rediscovery", Recreation and Commemoration, 1899-Present

This first period discusses the native trail corridor at the time of Euro-American contact, primarily seen through the eyes of survey parties led by Tlingit packers, in order to illustrate, to the extent possible, a historic "baseline" in terms of knowledge, establishment, and use of the trail in the years before the phenomenon of the Klondike Gold Rush in

1897. The second historical period illustrates the rapid and profound transition between a native packing trail and one engineered to move numbers of people and supplies in pursuit of wealth in the Yukon goldfields during the gold rush "stampede" of 1897-1898. Finally, the third period of landscape history addresses the abandonment and rediscovery of the trail corridor between 1899 and the present day, focusing primarily on the development, construction, and ongoing management of the current trail and its associated features within a commemorative framework.

The Tlingit Trail and Euro-American Contact to 1887

The Chilkoot Corridor's primary historic use was as a trade route between the coastal Indians of the Chilkat and Chilkoot tribes, subgroups of the Tlingit Indians, and the interior Indians, the Tagish or "Stick" tribes, subgroups of the Athapaskan Indians. No firm record exists of how long the corridor has been in use, though it is estimated to be approximately two centuries before European exploration of the area in the eighteenth century. The Tlingit rigidly controlled access to the Chilkoot Pass, an advantage that allowed them to create a trade hegemony often holding their more passive interior trading partners to great disadvantage.

In 1741, Russian explorer Vitus Bering opened up trade with the Tlingit, leading the way for the establishment of a lucrative European fur trade along the south coast of Alaska. The Tlingit continued to vigilantly defend their monopolistic hold over the trade routes, refusing travel over the Chilkoot Pass by either Euro-American traders or interior Natives. By maintaining this control, the Tlingit became prosperous middlemen during the booming fur trade of the early-to-mid nineteenth century.

In the face of increasing Euro-American settlement as the word of interior mineral wealth spread, the Tlingit found it necessary to relax their hold on the Chilkoot Pass, formally opening the route to Euro-Americans in an 1880 agreement. Contributing to this concession was the Tlingit realization that packing for prospectors and pioneers over the pass could be significantly more lucrative than continuing the fur trade, now in decline due to the decimation of prized fur-bearing populations.

Led by Tlingit guides, Euro-American accounts from this period speak to the traditional use and knowledge of the trail corridor, and its transition from strictly controlled native trail to one dominated by Euro-American interests. The majority of the pioneers who crossed the Chilkoot Pass in the late 1880s were prospectors, and steady numbers continued to arrive, prompted by modest finds throughout the Alaskan and Yukon territories. While several thousand had crossed the pass during small rushes in the early and mid-1890s, the 1896 discovery of gold near the Klondike River, a Yukon River tributary, sparked the Stampede of 1897-98.

Klondike Gold Rush, 1897-98

The Klondike Gold Rush of 1897-98 had a profound, if ephemeral, effect on the Chilkoot Corridor. As the Stampede began, the Chilkoot Trail was little more than a crude footpath along the Taiya River, traversing many precarious river crossings, muddy bogs, and rocky slopes. But as the rush swelled, entrepreneurs jumped to improve the route by erecting bridges or corduroying muddy stretches, recouping their efforts by charging tolls along the way. Most of these improvements and tolls were avoided in the winter months from January to April when Stampeders could move their outfits relatively easily up the frozen Taiya River all the way to Sheep Camp.

The first few miles of the Chilkoot Trail were deceptively easy. By the summer of 1898, the road from Dyea to Canyon City had been improved to a relative degree of ease for travel. This first segment of the eight and one half-mile stretch of the trail began at the waterfront in Dyea, and ran up Main Street before intersecting with Trail Street. It then continued one and one-half miles through town along the west side of the river before crossing to the east side over Kinney's Bridge. This wagon road can be traced from Dyea to Canyon City

although there are only a handful of traces left of it today. The precise route of the foot-trail to Canyon City is unknown due to reforestation and river erosion. This trail ran along both the west and east sides of the river to Canyon City, while the modern recreational trail resides entirely up the eastern bank, utilizing a 1940s-50s era logging road that parallels parts of the old trail in some places south of Finnegan's Point. The degree of overlap is unknown; in reality, there were probably numerous historic spurs of the main Chilkoot Trail, depending on whether one was traveling by foot, horse, or wagon. Yet another option for the lower trail was to travel by canoe to the head of navigation, one of the confluences of the Nourse and Taiya Rivers just above Finnegan's Point, before rejoining the main summer route north to Canyon City.

The trail from Canyon City to Pleasant Camp through the Taiya River canyon was essentially a pack-trail for horse and foot travel, and considered by many the worst part of the entire Chilkoot route, especially when wet and raining. From Canyon City, the trail crossed the Taiya and traversed along the steep canyon walls high above the Taiya River, crossing the river again at the beginning of the upper valley to end on the west side just south of present day Pleasant Camp. The trail then continued on the west side of the river over relatively level terrain until Sheep Camp. While traces of the pack-trail are visible on the east and west banks up the canyon, the modern recreational trail remains entirely on the east side of the river.

Above Sheep Camp, the trail quickly climbed out of the forested valley and onto the rocky upper slopes to Scales, a small resting point before the pass and the site of several historic tramway stations. The final stretch to the summit from Scales climbed the grueling "Golden Stairs", a 35-degree, 1,000 foot climb to the top of the slight notch that forms the Chilkoot Pass. The weary miners then crossed the International Boundary with Canada and made their way to Lake Lindeman Lake where boats were built for the rest of the journey.

A number of small settlements grew up quickly on the trail to serve the Stampeders and packers. Finnegan's Point, about five miles north of Dyea, was the first such encampment, a small resting place midway between Dyea and Canyon City. After a supply stop at Finnegan's Point, a site that roughly corresponded to the end of canoe navigation up the Taiya River, Canyon City was the first major stop on the route; a few scattered tents grew into a prosperous village by the spring of 1898, with twenty-five businesses and 1,500 inhabitants spread on both sides of the Taiya River. Much of the historic site has been eroded by time and the Taiya River, but a significant collection of artifacts still remain at the site, including a tramway boiler, road traces and structural ruins. Pleasant Camp was the next site along the trail with commercial services. The current alignment of the recreational trail follows the historic summer trail from Canyon City to just south of Pleasant Camp where they diverge; the old trail crossed the river and continued up the west bank, while the modern trail follows the east bank. Below timberline at approximately mile twelve, Sheep Camp was the largest settlement along the trail and marked the beginning of the last leg of the journey over the pass. From its modest beginning of two stores, Sheep Camp developed into a tent city a mile long, supporting fifty businesses and having as many as 8,000 people crowded onto its muddy streets. Prior to reaching the summit of the Chilkoot Pass via the dramatic "Golden Stairs," the trail passed through two other well known areas known as Stone House and the Scales. Stone House is perhaps the oldest known camping area on the trail, utilized by the Tlingit for perhaps millenia before the coming of white men. Scales is aptly named for its function as a weigh station for supply relays up to the pass during the Gold Rush era.

By the fall of 1898, the waves of Stampeders diminished; news of the tribulations of the journey and that all of the gold fields had long been claimed finally sank into the Lower 48 States. As many as 25-30,000 Stampeders had crossed into the Yukon by way of the Chilkoot corridor in the winter of 1897, while only 5-10,000 had utilized the White Pass route. Aided by the construction of

aerial tramways delivering gear to the summit, the Chilkoot Trail held prominence until the White Pass & Yukon Route railway was completed to the summit of White Pass in the winter of 1899, and extended to Bennett by that summer.

Abandonment, "Rediscovery", Recreation and Commemoration, 1899-Present

By 1899 the White Pass and Yukon Route railway had been completed to Bennett, but the gold rush was largely over, and the Chilkoot Trail quickly became unused and overgrown. Many of the hastily built structures along the trail were dismantled for firewood or timber; any other gear and machinery that could be moved was brought off the trail. The tramway machinery was broken down and removed in 1900 after its purchase by the WP&YR.

In 1906, International Boundary Commission surveyors retraced the Chilkoot Trail to determine the boundary and to set up monuments. O.M. Leland, chief of the American party, reported that the trail was overgrown and rough, the old bridges of 1898 were dilapidated, but that most of the buildings at Sheep Camp were still standing, as well as two buildings at the Scales.[21]

As a result of the trail's deterioration, recreational hiking was sporadic until interest in hiking the historic trail increased with improved access to the site via the road constructed between Skagway and Dyea (c. 1940-48) by the Alaska Road Commission. Robert and Wilma Knox, and Richard White hiked the Chilkoot Trail in July, 1957, and again in the July, 1959; each wrote journals that detailed the experience. From these trips and journals, Robert Knox, a writer for the *Anchorage Daily News*, produced a number of articles that were published in the late 1950s.[22] These feature stories and Pierre Berton's *Klondike* (1958) generated interest in the trail as a recreational hiking and camping destination which resulted in a growing lobby effort by hikers to preserve, maintain, and commemorate the trail.[23]

In 1961, two events sparked an interest in rediscovering the historic trail: the State of Alaska's survey of a recreational trail loosely based on the historic route and the beginning of an NPS Historic Sites Inventory of Alaska, during which the Chilkoot Trail and Dyea, Skagway, and White Pass were studied for National Historic Landmark designations. Skagway and the White Pass corridor were collectively nominated for NHL designation (officially listed in June 1962). Though the Dyea/Chilkoot sites were not included in the recommendation, the stage was set for future action.

From an historic standpoint, the State of Alaska's "rediscovery" of the Chilkoot Trail from Dyea to Sheep Camp was less than perfect. The route surveyed and eventually constructed was one that led entirely up the eastern side of the Taiya River, thus missing significant sections of the historic alignment, particularly south of Canyon City. A primary goal of the NPS Master Plan of 1971 was to restore the trail to its true historic location. However upon realizing that this would likely result in the significant loss of historical artifacts in those areas, this plan was abandoned. The current trail alignment, with some minor reroutes, dates to the years of state-directed construction, 1961-1968.

With increased visitation to the "new" trail blazed by the state, it was clear as early as 1965 that effective preservation and management of the area could not be accomplished without federal assistance. In 1972, NPS entered into a Memorandum of Understanding (MOU) with the State of Alaska that it would begin actively undertaking these duties (re-executed in 1978, 1984, 1989, 2002). President Gerald Ford finally authorized Klondike Gold Rush National Historical Park in June, 1976. The Chilkoot Trail was placed on the National Register of Historic Places in 1975, and in 1978 was listed as a National Historic Landmark entitled "Chilkoot Trail and Dyea."

NPS management of the trail took a decidedly different tone after 1978, when an inventory and assessment of trail conditions predicted dire circumstances unless park resources were directed toward establishing a permanent trail crew presence on the trail.[24] Rehabilitation of the existing trail between the years 1980 and 1995 was impressive; at the end of the period, the trail was no longer the "rough and tumble" route inherited from the

State of Alaska, but a recreational trail built to modern standards. As part of its responsibilities to protect the historic resources of the trail, seasonal archeological surveys revealed new layers of the Chilkoot Trail as a cultural landscape, especially in the years between 1990 and 2007, when fieldwork incrementally proceeded up the trail. As of 2007, work has progressed to Canadian Border at the pass, around mile 16, although several major sections of historic trail have yet to be surveyed.[25] Conservation efforts at identifying, documenting, and monitoring artifacts on the trail were also part of the NPS's management strategy. Also key to commemorating the trail is its interpretation as a historical landscape, whether through signage or the introduction of open-air museums at Canyon City and Sheep Camp, as outlined in the park's General Management Plan.

Despite the ongoing efforts of park staff, however, serious impacts to the trail's historic landscape fabric continued. Increased visitation to the trail as a result of a rise in overall park visitation and use is one factor in the rapid evolution of the cultural landscape in recent times. Another is the continuation of major environmental events associated with the dynamic glacial hydrology such as flooding, and in at least one case, an avalanche on the upper end of the trail.

By recognizing the Chilkoot Trail as a cultural landscape –and by its very nature a constantly changing landscape—the NPS management of the trail as both commemorative and recreational will continue to face daunting challenges. The "rediscovery" of the trail is an ongoing event, as its landscape history demonstrates, a process that must navigate between the layers of the past and future, nature and culture. Utilizing the latest technologies, such as LIDAR and GIS, mapping the Chilkoot Trail as a landscape system will enter a new era of interpretation, one that will undoubtedly influence management policies in the decades to come.

SCOPE OF WORK AND METHODOLOGY

The objective of this project is to prepare a Cultural Landscape Report, Part I, for the Chilkoot Trail, Klondike Gold Rush National Historical Park. The primary purpose of the Cultural Landscape Report (CLR) is to assist parks in managing cultural landscapes as protected resources, and is required for all NPS units as set forth in DO-28, Cultural Resource Management, and mandated under section 110 of the National Historic Preservation Act as amended.

Based upon *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques* (NPS, 1998), the completion of a Cultural Landscape Report, Part I, for the Chilkoot Trail required historical research, field work to document existing conditions and landscape characteristics, and analysis and evaluation of sites which comprise the cultural landscape. This information will be presented in both narrative and graphic forms.

The standard format of the Cultural Landscape Report, Part I, includes the following:

- *Introduction*
- *Site History*
- *Existing Conditions*
- *Analysis and Evaluation*

The analysis and evaluation section will identify management zones (integrating landscape character areas) and landscape characteristics that will guide the preservation treatment. The analysis and evaluation generally includes an inventory of contributing and non-contributing resources that leads to a statement of significance. In this instance, the Chilkoot Trail is already listed on the National Register (in fact a National Historic Landmark) with a period of significance related to the Klondike Gold Rush, 1880-1900. With the expanded view toward the ethnographic and potential archeological aspects of the Tlingit trail landscape prior to the Gold Rush, and the development of a commemorative trail corridor beginning in 1961, this statement of significance has the potential to be expanded to include dates prior to 1880 and after 1961, perhaps to the present day. Additionally, given the scale of the trail corridor, the analysis and evaluation section focuses on overall patterns of change by comparing the historic trail character

and the contemporary trail, rather than focusing on specific contributing and non-contributing resources within each feature description.

Supported by a combination of Cultural Landscapes Program, CRPP, and KLGO funding sources, this CLR represents a collaborative effort. Tonia Horton, AKRO Cultural Landscapes Program lead and landscape architect, served as the project manager for a team consisting of Michele Curran, historian, Samson Ferreira, historical landscape architect, Jerry Watson, landscape architect, and Land Design North landscape architects Terry Schoenfeld and Monique Anderson. This effort was largely abandoned in 2005 with the departure of Tonia Horton from the National Park Service. In 2007 the effort to complete the pending CLR Part I was resumed by S.L. Ferreira and KLGO personnel. Consequently this document has been through many revisions and was written by numerous authors. Final editing and revisions were largely completed by S.L. Ferreira, Karl Gurcke, and Lucy Kadarauch, a private contractor, all of whom worked on the gargantuan task of re-writing, editing and checking citations throughout this document. Field documentation of existing conditions occurred during the field seasons of 2000-2004, with another visit in 2008 to update existing conditions documentation. Graphic design and layout of this document was concieved and undertaken by S.L. Ferreira and Francis Broderick of Archgraphics LLC.

DESCRIPTION OF STUDY BOUNDARIES

Study Boundaries

The Chilkoot Trail is a component landscape of the thirty-three mile international Chilkoot Corridor landscape that extends from the head of the Lynn Canal in Alaska, to Bennett, British Columbia, in Canada. The Chilkoot Trail runs through the Chilkoot / Dyea Unit of the Klondike Gold Rush National Historical Park, and is located about 100 air miles north of Juneau, and 108 road miles south of Whitehorse, Yukon Territory, Canada.

The NPS Chilkoot / Dyea Unit is located about eight miles west of the town of Skagway via the Dyea Road and encompasses about 9,670 acres, which includes the Dyea Townsite (Map 1).

Approximately sixteen miles of the Chilkoot Trail lies within the borders of Klondike Gold Rush National Historical Park, which will be the focus of this study. Managed by the National Park Service through a Memorandum of Agreement with the State of Alaska, much of the trail corridor is owned by the State, with the NPS holding acreage at various locations throughout the trail corridor on a fee-simple basis (Map 2). There are also several private, Native Alaskan and municipal (municipality of Skagway) inholdings. The Chilkoot Trail is bordered on its north by the international boundary with Canada; this portion of the trail is under the jurisdiction of Parks Canada. In addition there is a 60 ft. wide section of land along the U.S side of the international boundary with Canada that is under the jurisdiction of the U.S. Department of State.

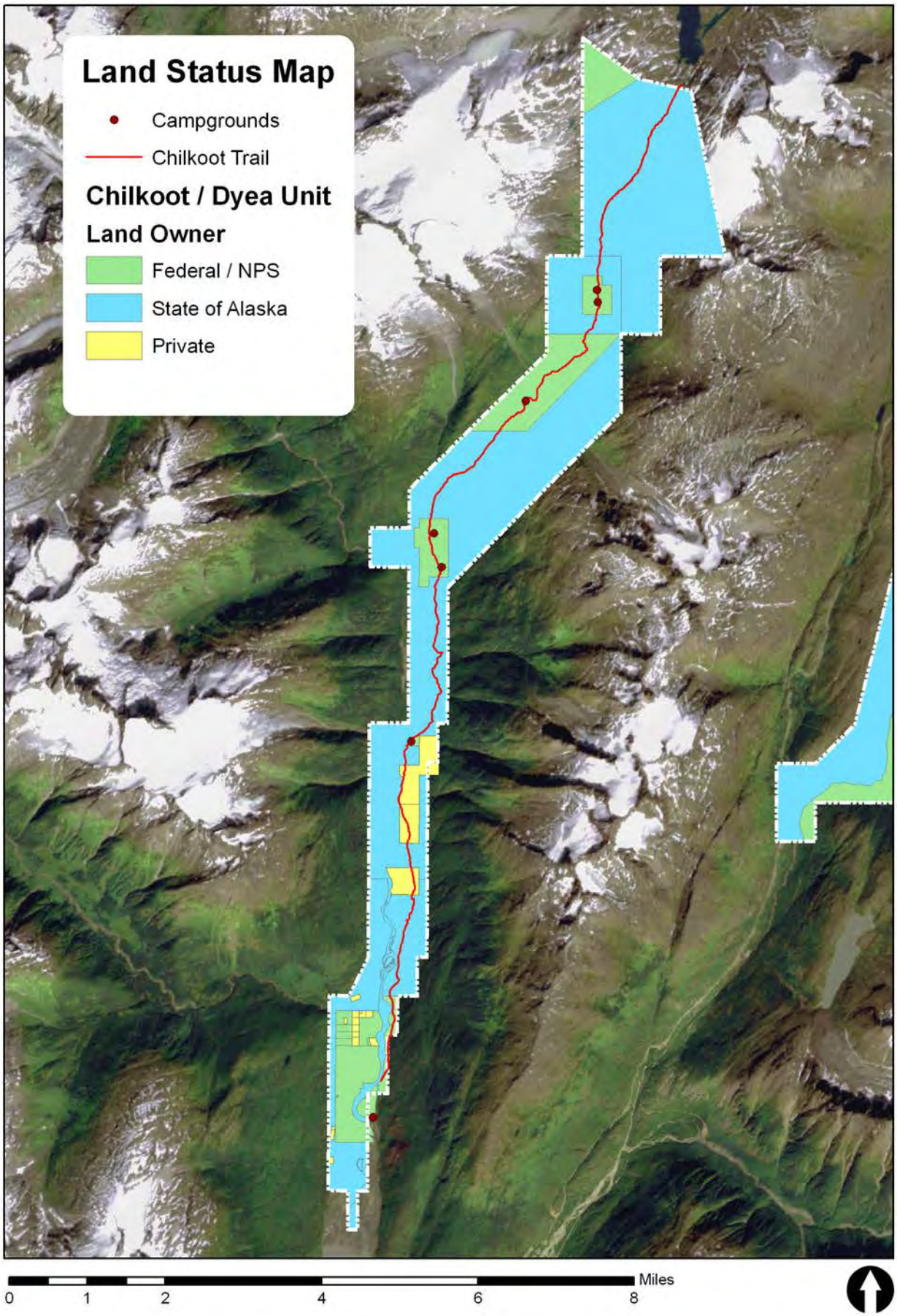
Beginning at the trailhead on the east bank of the Taiya River in Dyea, the Chilkoot Trail lies within T. 27 S., R. 59 E., sections 2, 11, 14, 23, 22; T. 26 S., R. 59 E., sections 1, 11, 12, 14, 23, 26, 35; T. 26 S., R. 60 E., section 6; and T. 25 S., R. 60 E., sections 17, 20, 29, 30, 31, all in the Copper River Meridian, Alaska.

SUMMARY OF FINDINGS

In cultural landscape methodology, the CLR typically seeks to describe the evolution of the historic landscape by analyzing its historic character and evaluating the rate and scale of change based on a documentation of existing conditions. The Chilkoot Trail CLR, Part 1 provides an overview of the various landscape layers present in the current resource environment through its site history; its analysis and evaluation based on landscape characteristics point to several conclusions that will affect the development of a treatment plan in the proposed CLR, Part 2.

First and foremost, the idea of a singular "trail" is a contemporary one based on the survey of a hybrid recreational/commemorative trail by the State of Alaska in 1961. Historically, the "Chilkoot Trail"

Map 2


Land Status Map
Campgrounds
Chilkoot Trail
Chilkoot / Dyea Unit
Land Owner
Federal / NPS
State of Alaska
Private
Miles
0
1
2
4
6
8

was a braided network of paths contingent upon seasonal conditions (spring, summer, and winter routes) that dictated environmental conditions to which travelers responded (high river flow, flooding, avalanches, frozen river, among others). While at any given point in time there may have been sections of the historic "trail" that remained fairly stable in terms of use (such as trails in and out of Canyon City, Scales to the pass, etc.), the sheer numbers of Stampeders from 1897-1898 would suggest the creation of alternate—if ephemeral—side trails by travelers seeking the quickest and easiest routes to the summit. Thus, the idea of a historic trail *corridor* is, in all likelihood, more representative of actual conditions of use during the recognized period of significance. Treatment planning for the protection of the cultural landscape, therefore, would incorporate this idea to expand the scale of appropriate preservation strategies.

Secondly, the creation of the contemporary trail alignment by the State of Alaska (1961-68) and its management and rehabilitation by the National Park Service (1971-Present) bears an uneasy relationship to the actual "historic resources" that survive from the period of significance, 1880-1900. Tangible remains are almost exclusively archeological, and many remain hidden in the extensive vegetative cover outside the current trail alignment. In this case, determining the "integrity" of the cultural landscape may focus less on an analysis of surviving physical *resources* than on the recognition and protection of the historic landscape's overall *character* within the trail corridor. State of Alaska and NPS construction of trail tread and structures such as bridges, for instance, may or may not respond to the actual historic sites of water crossings. Much more discernible are the larger patterns of spatial organization, or nodes, of activity along the trail that relate to its historic use such as the continued use of general camping areas (Sheep Camp, for instance) that date to the earliest documentation of the Tlingit trail. CLRs typically distinguish between management zones and "landscape character areas." However, recognition of the existing trail corridor as an *integration* of historic character and contemporary use should be the primary objective of any treatment plan.

Therefore, this report articulated five management zones (pp. 340-343) that correspond directly with landscape character areas, rather than as separate entities. The documentation of existing conditions responds to this integration.

Based on the landscape history and the analysis and evaluation, additional potentially eligible periods of significance or designations might be appropriate, thus strengthening the commemorative potential of the Chilkoot Trail as a cultural landscape. While few resources remain from the Tlingit ethnographic landscape, it may be important to further characterize the trail corridor's origin as a Traditional Cultural Property. Another potential shift would be to expand the periods of significance to include the commemorative/recreational trail from 1961 to the present as an exception to the 50-year rule for inclusion. In addition to a rigorous application of the Secretary of Interior Standards for developing a treatment plan, a broader view of historical significance would respond to the ongoing evolution of the trail's cultural landscape resources, and the future legacy of trail development in a dynamic historic and natural environment.



The 'Golden Stairs', and Peterson Pass, view from south Scales, 2003. S.L. Ferreira, NPS Alaska, Cultural Landscapes Program.

Endnotes

[1]As defined by the National Park Service, a cultural landscape is "a geographic area, including both natural and cultural resources, associated with a historic event, activity, or person, or that exhibits other cultural or aesthetic values." National Park Service, *NPS-28, Cultural Resource Management Guidelines*, Release #4 (Washington, DC: 1994). Cultural landscapes are complex resources that range in scale and significance from a single property (e.g., the Moore house in the Skagway Historic District) to a corridor comprised of thousands of acres (Chilkoot Trail Corridor).
[2]The Norris and Taylor document is the historical component, and the partial architectural component of the proposed Dyea-Chilkoot Trail Historic Structures Report (HSR). The HSR has not been completed to date. KLGO RMP Revised, 2000.
[3]Edwin C. Bearss, *Proposed Klondike Gold Rush National Historical Park: Historic Resource Study* (Washington, DC: National Park Service, November 15. 1970), 51-76, 105-148.
[4]See site history for trail construction by State of Alaska in the1960s; the NPS assumed maintenance responsibilities in 1972.
[5]Bearss, 291.
[6]Ibid.
[7]Frank Norris and Carol Taylor, *Historic Structures and Sites: Dyea and the Chilkoot Trail*. Klondike Gold Rush National Historical Park, NPS (unpublished, 1985).
[8]Specific recommendations addressed, in some cases, further studies needed—in others, directed treatment of extant artifact zones or individual artifacts. Recommendations ranged in scale. Cathy Gilbert, draft trip report, *Cultural Landscape Recommendations, Chilkoot Trail, Klondike Gold Rush NHP*, September, 1989.
[9]*Resource Management Plan, Klondike Gold Rush National Historical Park*, 1994, revised 2000, 3.
[10]Caroline D. Carley, "Inventory of Cultural Resources in the Chilkoot and White Pass Units of Klondike Gold Rush National Historical Park", 1981. Limitations on time and funding confined the project to three-months in the summer of 1979. The Carley report does not provide a complete assessment or inventory on the Chilkoot Trail archaeological resources due to their focus on major sites, excluding the areas in between those sites or the trail routes. RMP, 13.
[11]*GMP*, 3.16. See also Carley, 1981
[12]*RMP* Revision, 2000, 11-12.
[13]*GMP*, 3.20.
[14]Ibid.
[15]Ibid.
[16]Ibid.
[17]Ibid., 1.11. Authorizing park legislation only allows acquisition by exchange or donation of state or community lands. The GMP recommended that this issue should be thoroughly discussed in the public review process to explore the possibility for partnerships with the state and/or local government for the management of the state-owned land in the park. The Municipality of Skagway has acquired 1,416 acres of state land within the park under the state's Municipal Entitlement Program. Three private parcels of land in the vicinity of the Hosford's Sawmill now contain a 25-foot wide easement containing the trail alignment. The 1995 sale of one parcel to a local air charter company indicates the reality of potential development and/or methods of access issues that could influence the first three miles of the trail.
[18]Ibid.
[19]Ibid., 1.14.
[20]Ibid., 2.35.
[21]David Neufeld and Frank Norris, *Chilkoot Trail: Heritage Route to the Klondike* (Whitehorse, Yukon Territory, Canada: Lost Moose Press, 1996), 147; O.M. Leland, *Report of Work done in 1906 on the Alaska Boundary Survey*, March 26, 1907, in Energy, Mines, and Resources (Canada), files of International

Boundary Commission.
[22]Knox collection, University of Alaska-Anchorage, Special Collections.
[23]Neufeld and Norris, 149.
[24]Shields, 1978
[25]As of this writing, the section of historic trail between Canyon City and where the historic trail crosses the river at the head of the canyon has never been systematically surveyed, nor has the western side of the Taiya River from this point (historic Camp Pleasant) to historic Sheep Camp. Of course one reason the river bed itself (between Canyon City and Camp Pleasant) has not been surveyed is the difficult and dangerous access issues in the Canyon bottom. Given what we know about the history of these areas however, these sections may prove to have an extremely high density of archeological features, especially the relatively unknown section between historic Camp Pleasant and historic Sheep Camp. In addition, many areas around Finnegan's Point were never surveyed because of dense vegetation and wet boggy conditions. For similar reasons the 'islands' (sections of land where the Nourse and Taiya Rivers converge to form 'islands') between Finnegan's Point and Canyon City have never been surveyed.

CHAPTER 2: SITE HISTORY

CHAPTER TWO: SITE HISTORY

Contemporary hikers of the Chilkoot Trail from its trailhead in Dyea to its terminus at Lake Bennett in Canada encounter a landscape that, in many ways, is both dramatically similar and dissimilar to the landscape that existed during the Klondike Gold Rush. This is particularly true in respect to the 16 mile trail corridor managed by the National Park Service, where the experience of hiking the trail is largely viewed as recreational rather than "historic." Although not intended as a comprehensive history of the Chilkoot Trail, this site history focuses on an overview of its character as a cultural landscape, that is, as a matrix of cultural and natural resources that shape the trail as a significant heritage resource for the American public. In this respect the history presented here is schematic, intending to make connections between the built environment, human experience, and the dramatic natural environment that has formed the trail setting over the past two centuries.

To begin, this landscape overview will examine the native Chilkoot Tlingit trade trail as documented at contact between Native Alaskans and Euro-Americans between 1883-1887. While decidedly limited in source material, these eyewitness accounts do contain details about the Tlingit and Tagish traditional use of the trail and will demonstrate, to the extent possible, a historic "baseline" in terms of knowledge, establishment, and use of the trail in years before the full onset of the Klondike Gold Rush. A second historical period will illustrate the rapid and profound transition the trail underwent, from a Native packing trail to a route engineered to move great numbers of people and supplies in pursuit of wealth in the Yukon goldfields during the stampede of 1897-1899. Finally, a third period of landscape history addresses the development, construction, and ongoing management of the current trail and associated features within a commemorative framework.

The Tlingit Trail and Euro American Contact to 1887

The Tlingit Landscape

Prior to the Klondike Gold Rush, the Chilkoot Trail corridor's primary use was as a trade route between the coastal Tlingit and interior Tagish tribes. No precise record exists of how long the corridor had been in use, though it is estimated the route was used for at least two centuries before European exploration of the area in the nineteenth century. The Tlingit claimed ownership of the trail to the Interior, and rigidly controlled access to it as well as trade with the Tagish, thus holding their interior trading partners to great disadvantage.

Trade between the groups consisted mainly of the exchange of coastal products for furs and other products of the interior. To the north flowed clams, seaweed, dried fish, sea otter pelts and other marine products. In particular, eulachon (hooligan) oil, tendered from a cod-like fish, was an important commodity that the Tagish relied upon for nutritional and cooking needs, and gave rise to the Chilkoot route being tagged the "grease trail" by Euro-American explorers. In exchange, the Tagish sent primary fur stocks of moose, caribou, and beaver, among others, as well as lichen dyes and goat wool, south to the coast.

The Chilkat/Chilkoot Tlingit territory was centered in Northern Lynn Canal. During the American-era, many considered the Chilkat Khwáan the wealthiest and most powerful of the Tlingit groups because of their monopoly over trade to the interior via the Chilkat and Chilkoot passes.[1] Despite the distinction in identity, the Chilkat and Chilkoot were part of a single Khwáan including four large villages and numerous seasonal camps centered around what today is northern Lynn Canal. Although both groups maintained separate territories, recent anthropological investigations

suggest that use areas overlapped a great deal and intermarriage between the two groups commonly occurred. While the Chilkat consisted of six major clans (the most basic unit of Tlingit social structure) the Chilkoot originated in one clan, the Lukaax.'adi.[2]

Along with their four large permanent villages, the Chilkat and Chilkoot established at least five smaller villages including Dyea (Dayei, or "packing place"), a Chilkoot village known as a seasonal fishing and resource harvesting camp, and importantly, the staging area for trade between the coast and the interior. Tlingit James H. Lee recalled in the 1940s that "at Dyea there was a trail which went up to the Interior Indians who were met at Lutsis Aan."[3]

In addition to Dyea's proximity to the Chilkoot Pass, the Chilkoot likely chose the site for its access to Lynn Canal and the freshwater tributaries of the Taiya River that offered seasonal eulachon and salmon runs. Gentle coastal slopes also provided safe canoe landing areas and access to freshwater sources.

In 1946, Paddy Goenette, a Chilkoot Tlingit from Haines, provided information regarding Chilkoot territorial claims to the encampment at the foot of the trail:

Dyea and Skagway are claimed by my people. There are three streams at Dyea, and there are three smokehouses there. The people did not live there the year around, but used the place a great deal. All three of these smokehouses were owned by Lukaax.'adi people. They controlled a large area of land. This place was used for berries as well as for smoking fish. The Indian people also hunted there and smoked meat. They generally went up to Chilkoot to put them up...Cottonwood was also used for making canoes. I used to make them with my father at Dyea. We would get the wood from the river, load the cottonwood on canoes, and bring it back here. The Athabaskans used to come down there to trade for white man's clothes.[4]

Dyea's strategic location helped the Chilkoot control the trade to the Athabaskan interior across Chilkoot Pass. Chilkoot descendants report that the route extended to the Athabaskan Indian village of Lutsis Aan on the Yukon River. Trading sessions



Aerial view of Dyea flats and townsite at high-tide. T. Horton, NPS Alaska, Cultural Landscapes Program, 2001.

often involved feasting and storytelling. Trade alliances were forged by marriages between coastal (Tlingit) and interior (Athabaskan) peoples. Near the end of the nineteenth century, the Carcross-Tagish (Athabaskan Natives) reported trips to barter goods at Dyea. According to Carcross-Tagish Angela Sidney, "people used to go down to deal with those coast Indians. They used to go down after beaver season closed in springtime; then they would go down to Dyea". [5]

The seasonal subsistence cycle began in spring, with activities involving deep-sea fishing for halibut and cod, gathering shellfish and plant food (including berry-picking), trapping fur-bearing animals, and hunting waterfowl. Later in the season, people would catch and process oil from eulachon, the most important fish oil to the Tlingit and Interior Indians. By early summer, villagers participated in house construction, potlatches, and trading trips. Midsummer subsistence activities included salmon fishing, hunting, gathering, and preserving for the winter months. Deer, black bear, mountain goat, and berries provided additional foodstuffs. In autumn, the Chilkat continued catching and drying salmon, as well as hunting other game, until the winter feasts and potlatches.[6]

Russian traders arrived on the west Pacific coast of Alaska in 1741 and began a lucrative fur business in the region trading with local Tlingit tribes. Spanish, English and French explorers and traders followed; however, the Tlingit Chilkat and Chilkoot refused passage into their territory on the upper Lynn Canal, thereby safeguarding their role as intermediaries selling fur from the interior Athabaskans to European traders on the coast. By maintaining this control, the Tlingit became prosperous middlemen during the booming fur trade of the early-to-mid eighteenth century. As early as 1848, the Hudson Bay Company's trading post (Fort Selkirk) at the Yukon and Pelly Rivers threatened the Chilkoot monopoly by trading with the Interior Athabascan Indians until the Chilkat looted the fort in 1852.

After the United States purchased Alaska in 1867, more people sought passage to the Interior for gold prospecting. Beginning in the late1870s the presence of the U.S. military challenged Chilkoot hegemony over the trails (primarily the Chilkoot and Chilkat trails) to the interior. Beginning around 1872, small numbers of prospectors began to enter into the Yukon Basin on rumors of gold. Many knew of the route over the Chilkoot pass, and many tried to gain access, but were vehemently denied by the Chilkoot Tlingit. As word of interior mineral wealth spread, more and more Euro-Americans sought access to the Chilkoot route. The route was formally opened to Euro-Americans in 1880 after an agreement was signed in large part due to the skillful diplomacy of U.S. Navy Captain, Lester E. Beardslee.[7] Contributing to this concession was the Tlingit realization that packing for prospectors and pioneers over the pass could be significantly more rewarding than continuing the fur trade, now in decline due to the decimation of prized fur-bearing populations. As a result of these negotiations in 1880 the Tlingit agreed to open the Chilkoot Trail to a group of nineteen miners (with the implication, at least in the mind of Beardslee, of others to come) in exchange for exclusive packing rights. Considering the decline in the fur trade from the interior and the resulting loss of profit, the guarantee of packing rights on the trail would prove highly profitable for the local Chilkoot Tlingit. Another contingency in the agreement restricted the miners from engaging in unauthorized trade with the interior Indians and that the white miners would only be in their territory as guests, and that they would behave accordingly.[8] Although initially advantageous and ultimately very profitable to the Chilkoot clan, respect for these agreements would fade, and interpretations would vary, thus marking the beginning of the end of Chilkoot control of the trail.

The Arthur Krause Survey

Although several parties of prospectors crossed over the pass in 1880 and 1881, the first detailed accounts of the Taiya River Valley come from the German ethnographer, Arthur Krause (1882).[9] Arriving in Deshu, a small settlement with a trading outpost and mission near contemporary Haines, Aurel and Arthur Krause documented native life in the nearby village of Chilkoot and explored the surrounding areas. In April of 1882, after Aural had returned to Germany, Arthur made his first

trip to the Taiya River Valley, which he would later map extensively.

Accompanied by Kasko a local Chilkoot, Krause's description of his short spring visit provides the first glimpse into the Tlingit landscape of the trail corridor, beginning at the Dyea flats. He described access to the seasonal encampment at the tidewater: "At its outmost end the bay is extremely shallow, but we arrived during high tide, we could go out into the eastern shallow arm with our flat-bottomed boat until we could pull the canoe ashore at a place where several others were lying". Arriving at a seasonal cabin or hut "of about 5 paces square, almost attached to the rock," Krause and his guide found the camp full due to the seasonal hooligan run on the river so they decided to camp "on a small island where low alders and willows grew, in the at present mostly dry river bed..."(Krause, 1882:196). The next day while hiking, Krause noted that "the second chief of our village, Chlunat," and another Indian packer had gathered barter items consisting of "smoked salmon, fish oil and flour, snowshoes, guns, and axe," in order to trade with the Stick Indians for furs, which they would then sell to the white trader "at great profit".

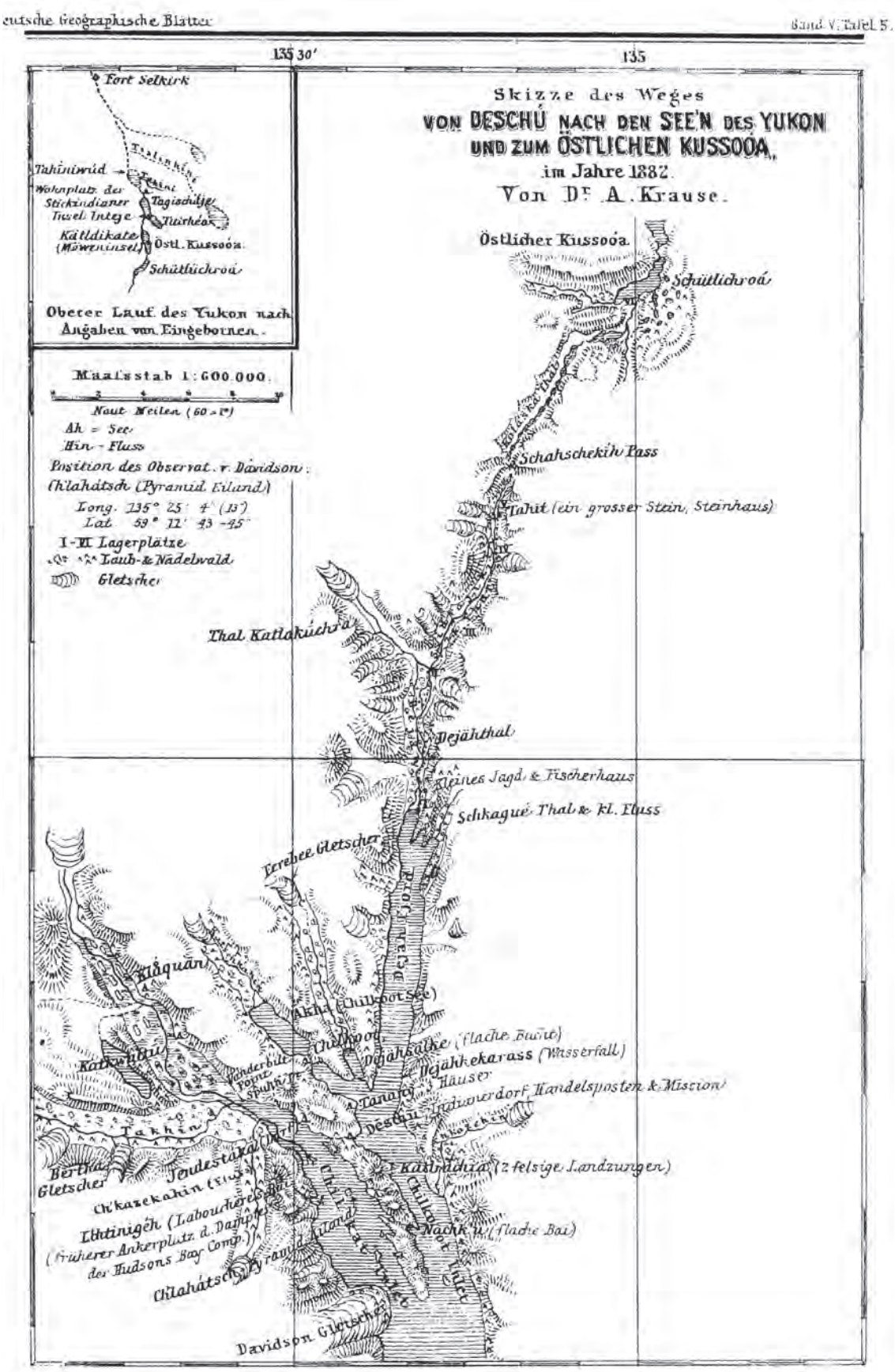
During his initial trip to Dyea and the Chilkoot Trail, Krause "...found a log cabin and a few sawn-up logs, traces of the presence of those four gold miners who went over the Yukon last year," and described how the "snow-less path in the bed of the river or on the frozen river itself covered with a little snow was very easy to follow". He may have even ventured up the trail as far as the site that would become known as Canyon City, as his narrative suggests:

Here the valley narrows to about 800 paces. The sparsely wooded, steep slopes reach a height of 900 to 1,200 meters. Across the end of the valley in a northeasterly direction is a mountain range which has large glaciers in two depressions. Another, even mightier glacier is on the western mountain chain...In the middle of summer, when the snow in the high mountains melts, this path through the greatly swollen river is said to be very difficult. Then it leads over crisscross, piled-up trunks, through thick underbrush of berry bushes (currants, gooseberries, blackberries, Cornus sanguinea Linné, etc.) and very prickly aralia that do not help to make this walk easier (Krause, 1882: 198-199).

Krause reported the various fauna he encountered in the valley, as well as evidence of seasonal Tlingit harvesting: wolf and bear traps in the woods, and two minks caught by natives while he was there. In addition, the natives informed him of frequent bear sightings when the berries were ripe (Krause, 1882: 199). Weather conditions forced an early end to Krause's first trip.

Returning to Dyea and the trail a month later in late May of 1882, Krause and two Tlingit guides prepared "to go over the Dejäh Pass to the Yukon Lakes". The group arrived at the Dyea flats at low tide, forcing them to canoe up the shallow bed of the stream quite some distance, until they reached the first grassy areas where they could pitch their tent. The following morning the Tlingits pulled the canoe up river, "about 5 miles against a strong current, while I had to wait for the canoe to cross the deeper river arms" (Krause, 1882: 205). Krause's account also depicted aspects of the Tlingit navigation of cargo-laden canoes up the tricky meanders of the Taiya. The Tlingits broached swift currents by disembarking, and with a long rope would pull the canoe upstream, while one person would remain in the canoe to navigate, or get out and push from behind.[10]

At a point that would later become known as the "head of canoe navigation", the group beached the canoe and began to hike up the valley. Unlike Krause's earlier trek up the frozen waterway, this route was dictated by the "greatly swollen river" forcing the group to travel along the river bank and occasionally in the river itself, walking "alternately on the rocky river bed and the left bank. The thick underbrush and the many trunks lying in every direction [hindering] us considerably". After camping the night "at the place where the waters of the *Katlakuchra* and the *Ssidrajik* join," Krause and the Tlingits continued on by crossing the river near the point where the modern trail leaves Canyon City, thus avoiding the narrow and impassible canyon.[11] They then set up camp in a place about 330 to 495 feet above the bottom of the valley,



Arthur Krause's map of northern Lynn Canal and the Taiya River valley, 1881. Krause, Arthur. Krause & Krause, 1993, pg. 202.



Lithograph of Tlingit cooking down Hooligan, or "candle fish" for oil. Krause, Aurel. 1970, pg. 131.

where "the river falls in several cataracks through narrow rock crevices" (Krause, 1882: 206). They were surrounded by a forested area with moss-covered rocks and logs. Continuing the next day on the eastern riverbank, the group hiked passed areas that would become Camp Pleasant and Sheep Camp. Krause described the trail below treeline as leading "across the rocky valley through dense green alder bushes in a steep ascent to the treeline. Camp V was set up in the last knee-high timber," and located somewhere near "Stone House," which he mapped as the Tlingit word *Tahit*. Krause climbed slightly above treeline, noting two "mighty glaciers" to the right of the camp, "the one farther north [coming] steeply down," and attracting their attention with its "repeated roar". [12] The final ascent to the pass followed a snow-covered trail on the western side of the valley through the area later known as "Long Hill" and "the Scales" to the summit. Krause recorded the name of the pass as *Schahschekíh*, a German transliteration of the Tlingit word for 'pass'. Unable to survey elevation because the views were obstructed by rain and fog, the group continued overland to the Yukon lakes (Krause, 1882: 208).

Krause's mapped route, and its narrative description, reveals the existence of a well-defined Tlingit trail corridor based on the traditional ecological knowledge of the environmental conditions (seasonality, currents, terrain shifts, available resources for harvest). The route alignments discerned from Krause's narrative description (and reinforced to some degree by his cartography) include a series of rather well-defined segments, originating from the Dyea tidal flats. These routes and camping areas, influenced heavily by topography, hydrology and vegetation, would resonate throughout subsequent Euro-American accounts prior to the gold rush years, beginning with an American military reconnaissance the next year.

The Schwatka Military Reconnaissance

In April 1883, Brigadier General Nelson A. Miles, Commander of the Department of Columbia, with headquarters at Vancouver Barracks, Washington Territory, ordered First Lieutenant Frederick Schwatka to lead the Alaska Military Reconnaissance. Miles wrote:

In view of the frequent reports of the disturbance of the peace between whites and Indians in Alaska, and the indications that the present condition of affairs must lead to serious hostilities between the two elements in the near future, you [Schwatka] are hereby directed to proceed to that Territory for the purpose of gathering all information that can be obtained that would be valuable and important, especially to the military branch of the Government.[13]

Schwatka's subsequent reconnaissance resulted in the first American survey of the Taiya River valley and the trail over the Chilkoot Pass, as well as the Yukon Territory and areas around the 141st meridian. Utilizing Krause's map, Schwatka's survey recorded observations of the valley from a logistical, and tactical perspective, noting the location of camps and travel time-frames from point to point. He noted the difficulty of the existing trail and its unsuitability for future use by horseback or for transport of heavy equipment that would aid American control, he even took notes on the general character of the Natives, how they traveled and their weaponry capabilities.

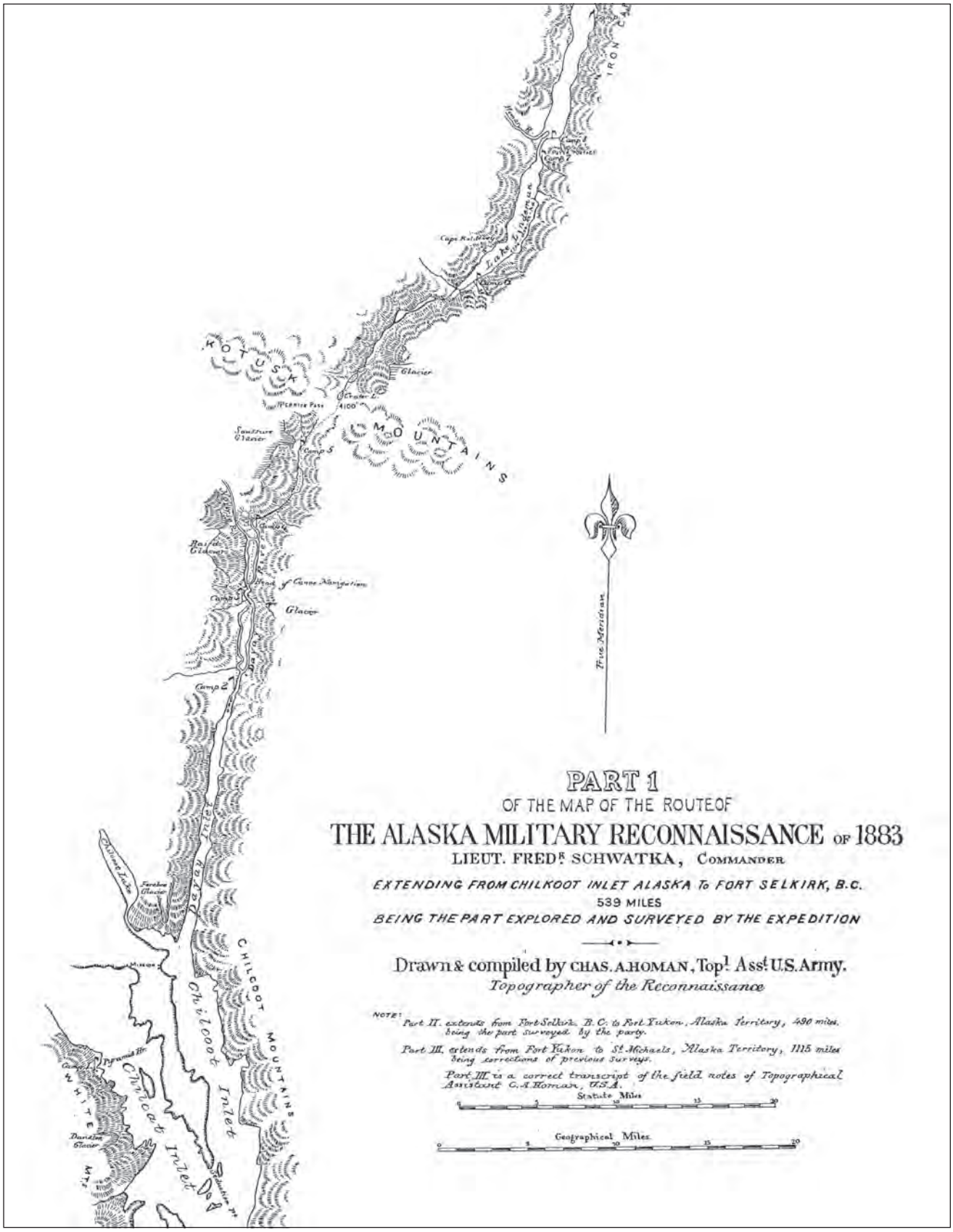
Arriving at the mouth of the "Dayay" River and Inlet in June, 1883, Schwatka described the tidal flats as situated "between high hills covered with spruce and pine" and estimated the width of the river valley at about one-half to three-quarters of a mile across, with "great bars of boulders, sand, and course gravel" and "groves of poplars, several varieties of willow and birch" scattered throughout (Schwatka, 1885:14-15). Noting how the mouth of the river was "really but a complex mass of mud flats," Schwatka reported that the party's camping gear, stores, and supplies were lightered to shore from the launch, loaded into canoes, and transported to a camp (Camp #2) about a mile up river near a grove of poplars in a grassy field.[14] The expedition relied exclusively on Chilkoot packers, although Schwatka indicated that a second Native group, the "Tahk-heesh" or "Stick," were camped above the Chilkoot packing village at Dyea and were permitted to travel up the trail by the Tlingit. Beginning on the trail the next day, Schwatka described the character of the river in ways similar to Krause, noting that the streambed "often breaks into many channels, and occasionally a fording place for footman can be found in wide shallow rapids" (Schwatka, 1885: 13-15).

The expedition pitched its third camp about one mile below a cascade that marked the head of canoe navigation, as "at the head of canoe navigation, there is no good camping spot". About two and half miles further north of the head of canoe navigation, and a short distance beyond a confluence of the Nourse and Taiya rivers, the third camp was established "near some perpendicular blocks of basalt rock, and in view of another glacier extending down between the two rivers." He recalled that a dense grove of small firs grew near the river where the Tlingit guides harvested walking sticks for navigating the talus fields further up the trail (Schwatka, 1885: 16). This camp is where the gold rush town of Canyon City would develop.

Following the summer route, the Tlingits led Schwatka's survey team out of the lower Taiya River valley, above the canyon and into the upper valley where they followed the streambed and the left bank, Schwatka reports that,

Occasionally the path would debouch into the river-bed wherever it was wide enough to give a mile or two of walking and wading, and then would strike over the mountain sides again. At places on the latter it would be very easy to lose the trail where they followed for long distances over great winrows and avalanches of broken bowlders [sic] and shattered stones varying in size from a person's head to the size of a small house. These grand barricades of bowlders, more often of crescentic shape across the course of some steep gulch or ravine, are of very recent origin, as shown by their often embedding willow and birch trees not over twenty to thirty or forty years old and still alive, half way up to their tops or 10 to 20 feet from their original stumps.

The expedition's fifth camp was near Stone House, described by Schwatka as "really only a jumbled mass of huge bowlders so thrown together that the natives can crawl under them and find sleeping places without being in contact with the snow" (Schwatka, 1885: 17). The final ascent to the summit proved a milestone for Schwatka, who called it "Perrier Pass"



The Schwatka expedition's map of northern Lynn Canal and the Taiya River valley. Schwatka, F. 1885.



While not the Schwatka expedition, this image depicts a typical camp scene at Dyea, with Tlingit canoes hauling gear up the river in their dugout canoes. Library of Congress, LC-USZ62-69438.

for Colonel J. Perrier of the French Geographical Society, a name that proved short-lived.[15]

Schwatka's reconnaissance of the Chilkoot Trail elaborates on a similar seasonal (Spring and Summer) route followed by Krause. Reliant upon Tlingit guides, both explorers navigated the Taiya River by canoe to the head of navigation, fording the meandering riverbed by foot in difficult areas. At this point, the route continued up the flood-plane, where seasonal water flow and deep channels could force travelers periodically to the heavily vegetated shoreline. At a major confluence of the Nourse and Taiya Rivers, somewhere near the head of the lower valley that provided views of the Saussure glacier, the trail crossed the river to the eastern side and headed north above the narrow canyon separating the upper and lower valleys, eventually passing through the upper Taiya River valley, a relatively level area that would later be referred to as Camp Pleasant, at its south end and Sheep Camp at its north. During Schwatka's visit neither of these place names had developed yet, although what would become the Sheep Camp area, was well known because of its distance (two days on foot) between the lower valley and the pass. It was also the last place to gather firewood before leaving the tree line for the talus slopes above. Stone House was already established in the popular lexicon of the trail. A Tlingit landmark and later cache site for packers, it provided another logical resting area, and was the location of Schwatka's fifth camp. From this point, the trail generally remained on the eastern side of the river up to the bowl-like area just below the summit (later known as 'Scales') and finally to the pass itself. The differences between the Krause and Schwatka camping locations can probably be attributed to the size of their parties. Krause's party consisted of three people, with little gear other than what they could carry on their backs. Schwatka's party, on the other hand, consisted of seven Euro-Americans, a vast quanity of gear and supplies (approximately 2 tons), and a contingent of approximately 40 to 45 Native packers.[16] Consequently Krause and his guides could camp almost anywhere, and travelled much quicker up the valley. Schwatka had to be more discerning with his campsites, and took three days just to travel from tidewater to the head of the lower valley. It took the Krause party one day to travel the same distance. Schwatka's timetable and campsite locations would foreshadow those to come during the gold rush.

The Winter and Summer Trail: Moore, Ogilvie, and Dawson

Two accounts from 1887, four years after Krause and Schwatka's visits, provide further detail on the Native trail corridor prior to the Klondike Gold Rush. The first, that of Bernard Moore (March 1887), illustrates the unique difficulties of winter travel up the Chilkoot Trail, and provides a description of the "cache and carry" system of transporting supplies used by the stampeders.[17] From their first camp at Dyea (just north of the Healy and Wilson trading post, established sometime between 1884-1886), Bernard and his brother William traveled on foot pulling sleds loaded with about 300 pounds apiece, "up the river ice...to the mouth of the canyon eight miles or so distant," returning repeatedly until their full complement of 1000 pounds was relocated to their camp near the head of the lower valley. Moore describes the winter route through the canyon between the lower and upper valleys, utilizing the frozen riverbed:

These canyons, or narrow gorges, during the open seasons, of course, are totally impassible; water rushes and tumbles over and around boulders large and small, and pitches over shelves and forms, in places, little falls. And late in the winter or early in the spring, at which time I write, the vast amount of snow has partially leveled the holes and depressions formed by the large boulders and rocks some eight and ten feet in diameter. And in sleighing up through these canyons one has to wind around these boulders and pick the way as best as one can; and the snow being very soft and light, we would many times sink clean up to our shoulders in it and the sleigh would topple over and over. We also had to be careful in getting around the open pools where we could see the water running swiftly under the edges of the ice. Several times we nearly fell into these pools, sleigh load and all.

The Moores eventually established a camp near the head of the upper valley, near treeline. From there they repeated the cache and carry mode in shorter segments, probably due to the increasingly difficult terrain up to the summit, with cache stops at Stone House, the area below the pass, and finally just over the summit. After depositing their supplies at the summit cache, they would return to their camp at treeline before nightfall. On the return trip, the men found it expedient to "sit down and slide down at great speed. In this way, we had a regular ditch or trough worn in the snow eighteen inches or two feet deep" (Moore, 1968: 44). After the final ascent of the pass, the Moores reloaded their sleighs and proceeded to Lake Linderman.

William Ogilvie's account from June, 1887 largely mirrored the earlier descriptions of the spring and summer trail by Krause and Schwatka, but had some significant differences. As part of the Canadian effort to survey the disputed boundary between the U.S. and Canada in this area, Ogilvie was a member of the team headed by George Dawson. For his part, Ogilvie was charged with running a traverse from Pyramid Island in Chilkoot Inlet, over Chilkoot Pass to locate the 141st Meridian up to the Yukon River – a survey route similar to Schwatka's. After arriving at the Dyea settlement by Tlingit-lightered canoes on June 6, 1887, Ogilvie sent his team, with 120 Chilkoot packers, ahead with provisions and equipment to be deposited in a cache at the summit. Following the advance party, Ogilvie set up survey stations at the head of the Taiya River Canyon, at the head of the narrow canyon separating the lower and upper valleys, treeline, Stone House, and the pass. In his book, *The Official Klondike Guide*, Ogilvie described the Tlingit-guided route from tidewater to the pass, recording the names of Sheep Camp, Stone House, and Scales as now familiar refrain in the eyewitness accounts:

The Dyea Pass leaves the head of Dyea Inlet and for the first eight miles from tide water up to the foot of the cañon the route is easy; nothing worse than a few rocks which were left in the terminal moraine of a glacier have to be encountered, and this only for a short distance here and there. The rise in this is about 300 feet. From the foot of the cañon the route winds along the hillside, and a few steep, short climbs have to be made as we go along, until we come to the second crossing of the creek. This is the worst part of the trail, for it is all heavily wooded and the surface rough and covered with decayed vegetable matter which in spots is worked into deep mud by the animals passing over it. The worst spots have been crosslaid. At the lower end of the cañon we cross the creek to the left or east side. Unless in very high water



Typical winter travel through the canyon separating the upper and lower Taiya River valley. This image appears to be near the head of the canyon, just before Camp Pleasant. c. 1898. University of Washington Libraries, Special Collections, Hegg 82.



Typical sled travel through the canyon, depicting the difficult terrain and treacherous open pools. c. 1897. Alaska State Library, Winter & Pond Collection, PCA 21-27.

this is not difficult, as the water is only a couple of feet deep, but the current is strong and the water icy cold. The width is only 30 to 40 yards. About 10 ½ miles from tide water we cross the creek on a bridge at the head of the cañon, which is about 700 feet above the sea. In the intervening distance the highest point is about 800 feet above sea level. We keep up the right or west side of the creek about 1 ½ miles to Sheep Camp, when we again cross the creek to the east side; in this last distance we rise about 300 feet. From there to Stone House, about ¾ of a mile, we rise nearly 600 feet and pass over a rough surface covered with immense rocks which by some convulsion of nature have been detached from the mountain side and rolled down to the bank of the creek. Through and over these we have to clamber a considerable portion of this distance. From Stone House the surface is more even and the traveling easier, as we have risen above the timber and scrub, and out of the mud which is found on the timbered ground. About half a mile from Stone House we ascend a sharp hill on the right or west side of the creek, the top of which is about 600 feet above Stone House. From this point we have easier traveling and rise about 900 feet over an easy grade to a place named "Scales." From this there is a sharp ascent to the summit of nearly 500 feet over a surface thickly covered with broken rocks which makes very difficult traveling, more especially when there is not enough snow to thoroughly cover all the surface; with a little freshly fallen snow here this part is difficult, and in spots dangerous. After the snow has covered all the rocks the route follows the bed of the creek and is a more uniform slope, easy, in fact, until we reach the foot of the steep slope at the summit.[18]

Ogilvie's trip on the trail was probably by packhorse from the Healy and Wilson Trading Post at Dyea, at least to Sheep Camp, instead of the combination of canoe navigation and the foot trail followed by Krause and Schwatka. One significant deviation in Ogilvie's route can be noted in the vicinity of what would become Camp Pleasant at the head of the narrow canyon separating the upper and lower valleys. Krause and Schwatka had continued up the eastern side of the valley from this point to the Sheep Camp area on foot, while Ogilvie, arriving four years later on a trail seemingly adapted for packhorses, crossed a bridge to the western shore or right bank at the head of the canyon to follow the trail to Sheep Camp. From there to Stone House and beyond, the summer route was more or less the same for all three parties, as topography, vegetation and hydrology gave one few route choices.

Dawson, for his part, traveled from the Interior, over the pass to the Dyea flats in the fall of 1887. His account is significant in that it reiterated the established place names and their correlation with usage, viewsheds, and environmental events. He writes:

To the south [of the pass],...it is at first abrupt and even precipitous, being accomplished over huge masses of fallen rock, which alternate here and there with steep slippery surfaces of rock in places; but the traveling here is after all not so bad as that met with lower down the valley, where the trail goes through the woods along the steep, rocky and often boggy hillside, leading up and down the sides of several deep, narrow gullies. Two small detached glaciers occupy hollows in the slope of the mountains on the west side of this valley, and from these a considerable part of the water of the stream is derived. The "Stone house," or stone houses, and "Sheep camp" are points noted in this part of the pass, the first consisting of several natural though inconvenient shelters, beneath great masses of rock which have rolled down from the mountain, where the Indians often stop overnight; the second being the point where arboreal vegetation of fair growth begins. At six miles from the head of the inlet, the stream followed down from the summit is joined by another which has been dignified by the name of the Nourse River. A short distance up the valley of the latter are somewhat extensive glaciers and high snow-covered mountains. Both the valley of this stream and that coming from the pass are narrow and V-shaped, but from their point of junction a wide flat-bottomed valley runs due south between high mountain walls and is continued further on in that occupied by the inlet itself. This valley is largely floored by gravel-flats and is evidently subjected at times to heavy floods. The little river formed by the confluence of these streams may be ascended with difficulty by canoes, for some miles, when the water is not low, but at the time we passed this was scarcely practicable. It is, however, easy to walk along the gravel-flats, the only discomfort being the necessity of fording the ice-cold and very swift water several times en route.[19]

Of interest from these descriptions is the landscape character of the lower valley. Ogilvie's remarks about the route from tidewater to the head of the lower valley are a case in point, he states that "for the first

eight miles from tide water up to the foot of the cañon [sic] the route is easy; nothing worse than a few rocks which were left in the terminal moraine of a glacier have to be encountered, and this only for a short distance here and there".[20] This description is markedly different from that of Krause & Schwatka, as he makes no mention of the areas where deep river channels force one to the bank and into the dense brush along the riversides, nor any mention of the head of canoe navigation. This suggests that a significant change in the landscape character of the lower valley may have occurred. Dawson reiterates the observation that the lower valley is "evidently subjected at times to heavy floods", again suggesting that a major change had occurred in the character of the landscape, at least in the lower valley. One possible explanation is posited by Greg Streveler, (a local biologists by training with an interests in geomorphology) in a 1995 study of the Nourse River drainage and its effects on the lower Taiya Valley.[21] Streveler suggests that several major floods have issued from the Nourse, in perhaps two groups of episodes, the more significant of which he places around 100 to 150 years ago, and another about 250 years ago. His time frame of 100 to 150 years is consistent with the narrative descriptions of the valley from the late 1800s. It also suggests that the flood (or floods) affected dramatically the hydrology and vegetation patterns of the lower valley, which would in turn significantly affect the route and difficulty of the trail through the lower valley.

Healy and Wilson & the Erosion of Tlingit Control: Prelude to the Klondike Gold Rush

After the Krause and Schwatka surveys of 1883, a small trading post was established near the Dyea Tlingit encampment sometime between 1884 and 1886 by Edgar Wilson and John Healy. At the time, most of Dyea's Tlingit, including men, women, and children, were engaged in the packing and transporting of goods for an increasing number of prospectors, surveyors and scientists. The arrival of a trading post at the small Native village was the first indication that control of travel and commerce on the Tlingit-dominated trail was about to change in dramatic ways. Between 1884 and 1886 Healy estimated the Native population of Dyea at fifty. Only a year later, in 1887, William Ogilvie noted 138 Native individuals at this locale. This dramatic rise in the Native population was evidence of the increased packing traffic, which was probably, in part a result of the establishment of the trading post. With increased contact between Tlingits and Euro-Americans came conflict over the legitimate control of the packing trade and access to the trail.[22]

Healy and Wilson's presence at Dyea challenged the traditional Chilkoot Tlingit monopoly on trade and trail access by outfitting prospective miners and then charging commissions for the services of native packers. More significant, however, was Healy and Wilson's interest in improving the trail in the expectation of increased traffic, and importantly, their commercial interest in creating a toll packhorse trail. By the Canadian surveyor Ogilvie's arrival in 1887, some construction on the trail was already evident: "Mr. Healy & Wilson, traders at Dyea, some years ago cut a pack trail from their post to Sheep Camp. This is now in a fair state for that country. What rights they claim on it I do not know, but I have not heard of their interfering with the public use of it, at least as far as miners are concerned."[23]

In his account, Ogilvie described a section of summer trail between the southern and northern ends of the Taiya River's canyon as "crosslaid" with timber; he also noted a bridge about 10.5 miles from Dyea, an area that would approximate the vicinity of the head of the canyon. One of the Chilkoot Tlingit chiefs, Lunáat, who was in charge of the packing trade from Dyea, complained bitterly to the U.S. government during the Alaska Boundary Tribunal, and specifically mentioned the corduroy construction: "Mr. Haley[sic] wishes to take away our road or trail to the Yukon, which my tribe does not like, as we made it long ago, and it has always been in my tribe. We fixed the road good, so that the miners would not get hurt, and Mr. Haley is putting sticks or logs on it, so he can get pay for people going in over our trail, and we do not want to see that."[24] Although Healy and Wilson relinquished the toll road, they continued to direct the pack trail operation, moving goods from Dyea to Sheep Camp and cutting into the Tlingit monopoly on packing. The overlay of eyewitness accounts up to 1887

point out salient characteristics of the cultural landscape that would become known as the "Chilkoot Trail". Significantly, the use of Krause's map by Schwatka and Ogilvie reinforced some of the ethnographic information it contained (trail alignment, the use of place names such as "Stone House") that specifically related to Tlingit occupation and use.[25] In the broader view, the early Euro-American accounts document a well-defined physical corridor that represented traditional use (Tlingit trade) and knowledge (naming of landforms, knowledge of environmental conditions, wildlife and vegetative patterns). This traditional knowledge and use was imprinted on the landscape by the "trail" in its seasonal forms, such as the different uses of the river in both winter and summer, as well as the strategic stopping points along the trail which related to both natural conditions and the function of carrying heavy packs while on foot, especially north of the head of canoe navigation.

The extent and intensity of use by the Tlingit is not known, but the sparsity of population at the seasonal encampment at Dyea suggests a localized, though consistent, Native use prior to the onset of the Klondike Gold Rush. Having no means to blaze a trail to the interior of Canada on their own, Euro-Americans were initially dependent on Tlingit labor and knowledge of the existing trail. For example, Krause, Schwatka, Ogilvie and Moore relied to varying degrees on the Tlingit knowledge of the trail in order to accomplish their tasks. No efforts at establishing a new trail route, or modifying the existing route in any way occur until the arrival of the Healy and Wilson commercial enterprise. While the creation of a pack trail may have changed the specific route of the trail, camp and resting points remain remarkably similar. The major impact of the pack trail was to allow horse traffic up to Sheep Camp, a factor that would alter not only Tlingit-controlled canoe packing to the head of navigation, but their foot packing business as well. With the exception of Healy's corduroy and bridge improvements, no other engineered aspects of the



Healy & Wilson's trading post, probably 1898 or 1899. Note Tlingit women and children, dugout canoes on the right and the Tlingit village in the background. Fridley Collection; Anchorage Museum, B70.22.14 (271).



Tlingit packing operation at Dyea, c. 1898. Library of Congress, 29265/262-30261.

trail can be discerned from these early accounts.

By the end of the pre gold rush period, the landscape of the Chilkoot Trail was defined in ways that would persist to the present day, particularly in the major spatial organization of the linear corridor punctuated by landmarks and sites recognized by most, if not all, travelers: Dyea, the emergent boomtown overshadowing the Native village at the foot of the trail; the head of canoe navigation (near, Finnegan's Point where the canoe traffic yielded to foot and horse); the mouth of the Taiya River canyon (Canyon City); The head of the canyon (Camp Pleasant); Treeline (Sheep Camp); Stone House; Scales and the pass.

Within a few short years, Tlingit control of the Chilkoot Trail – their cultural hegemony in the region – had been severely undermined by Euro-American commercial schemes to improve the trail for increased traffic. By 1895, an article in the Alaska Mining Record revealed that "Mr. Wilson has quite a scheme in view in the matter of transporting freight for miners over the pass to the head of navigation on the Yukon. He will build a zig zag trail up the steepest part of the summit, and intends to put twenty horses on the route." While never completed to the summit, the pack trail had extended to Stone House by May, 1895. In December, 1895, Healy and Wilson's post outfitted a dog sled operation intended to transport Canadian mail from Victoria. In 1896, one eyewitness account described a precursor to the tramway systems built a few years later, "Some enterprising individual had established a wire cable for the last six hundred feet lift, worked by two wretched horses, who were patiently plodding around in a circle, winding up sleigh-loads of



Tlingit and Euro-American packers on the Chilkoot Trail, on the flats just before Scales, c. 1897. University of Washington Libraries, Special Collections, 2038.

supplies and passengers at one and one-half cents a pound."[26] Despite Tlingit protests, the Euro-American influence over the Native trail corridor would irrevocably alter the cultural landscape within a few short years. With the onslaught of stampeders between 1897 and1898, the Tlingit legacy would be subsumed under the weight of frontier Capitalism, and the urgency of thousands of travelers seeking their fortunes in the Yukon.

The Klondike Gold Rush, 1897-98

While several thousand had crossed the pass during small rushes in the early and mid-1890s, the August 1896 discovery of gold on Rabbit Creek, a tributary of the Klondike River, by a prospecting party consisting of Keish (Skookum Jim Mason), his brother-in-law and sister, George W. Carmacks and wife Shá Tlá (Kate Carmacks), and his nephew Khá Gúxh (Dawson Charlie Henderson), would spark the stampede of 1897-98. The Klondike Gold Rush of 1897-98 had a profound, if ephemeral, effect on the Taiya River Valley. The first waves of stampeders, or "Cheechakos," as the Natives called them, poured into Alaska, generally landing at Dyea in order to access what was by now known as the 'Chilkoot Trail'. Skagway put up a hard battle to win prospectors over to the White Pass, or Skagway route, touting their deep-water port and disparaging the frustrating tidal flats the stampeders were forced to negotiate at Dyea.

Yet despite these liabilities, great numbers of gold-seekers continued to utilize the Chilkoot Trail, which, though higher and steeper, still presented a shorter, marginally better route than the brutal White Pass, or "Dead Horse" Trail, as it came to be known. As many as 25-30,000 stampeders crossed into the Yukon by way of the Chilkoot corridor in the winter of 1897, while only 5-10,000 utilized the White Pass route. Aided by the construction of aerial tramways delivering gear to the summit, the Chilkoot Trail held prominence until the White Pass & Yukon Route railway was completed to the summit of White Pass in the winter of 1899, and extended to Bennett by that summer. By that time, however, the main gold rush was largely over.

The Gold Rush Trail: Spatial Organization and Trail Character

In August 1897, in a special correspondence from the Klondike for *Harper's Weekly*, Tappan Adney depicted the Taiya River and lower Valley as follows:

...a stream of nearly twice the volume of the Skagway. As far as the canyon, eleven miles from the mouth, its course is through a level valley of sand, gravel, and bowlders, with groves and patches of cottonwoods and spruce and birch, while along its banks are thickets of alder and a species of willow resembling the red willow of the East. Its swift, mily [milky] ice-cold waters follow mainly the west side of the valley, but at various points, little branches roam away from the main stream. The river is filled at this season with salmon, spawning, and with large, fine trout. . . . There are also red squirrels, and if those who have hunted in this region can be relied upon, the country abounds in large game as well as small – grizzly bears on the mountain-sides, mountain-goats (miscalled "sheep" here) on the summits that overlook the valley and numerous small fur-bearing animals.[27]

While the natural splendor of the valley may have remained consistent since the Krause and Schwatka visits, Dyea had evolved dramatically from a Native village and trading post to a surveyed townsite with businesses and services reflecting its role as a gold rush boomtown and staging ground for the stampede. Spatially, the origin of the Chilkoot Trail was anchored to the town grid by way of both Broadway and River (Trail Street at northern Dyea) Streets, converging at a point just south of the crossing of the Taiya (a ferry site and later the location of the Kinney Bridge) that marked the boundary between the town and the trail. Through its heyday, the trail's origin in Dyea provided a colorful addition to the already chaotic scene. In July 1898, Mrs. George Black observed, "many people, animals on the trail, dogs, horses harnessed to sleighs, carts; herding pack ponies, and the odd cow. One woman drove ox-cart."[28]

Tappan Adney provided the following recollection of the trail from Dyea to Sheep Camp:

From the Indian village the road follows the western bank of the river to the ferry, where horses can ford in the early morning. Thence the road continues, crossing and

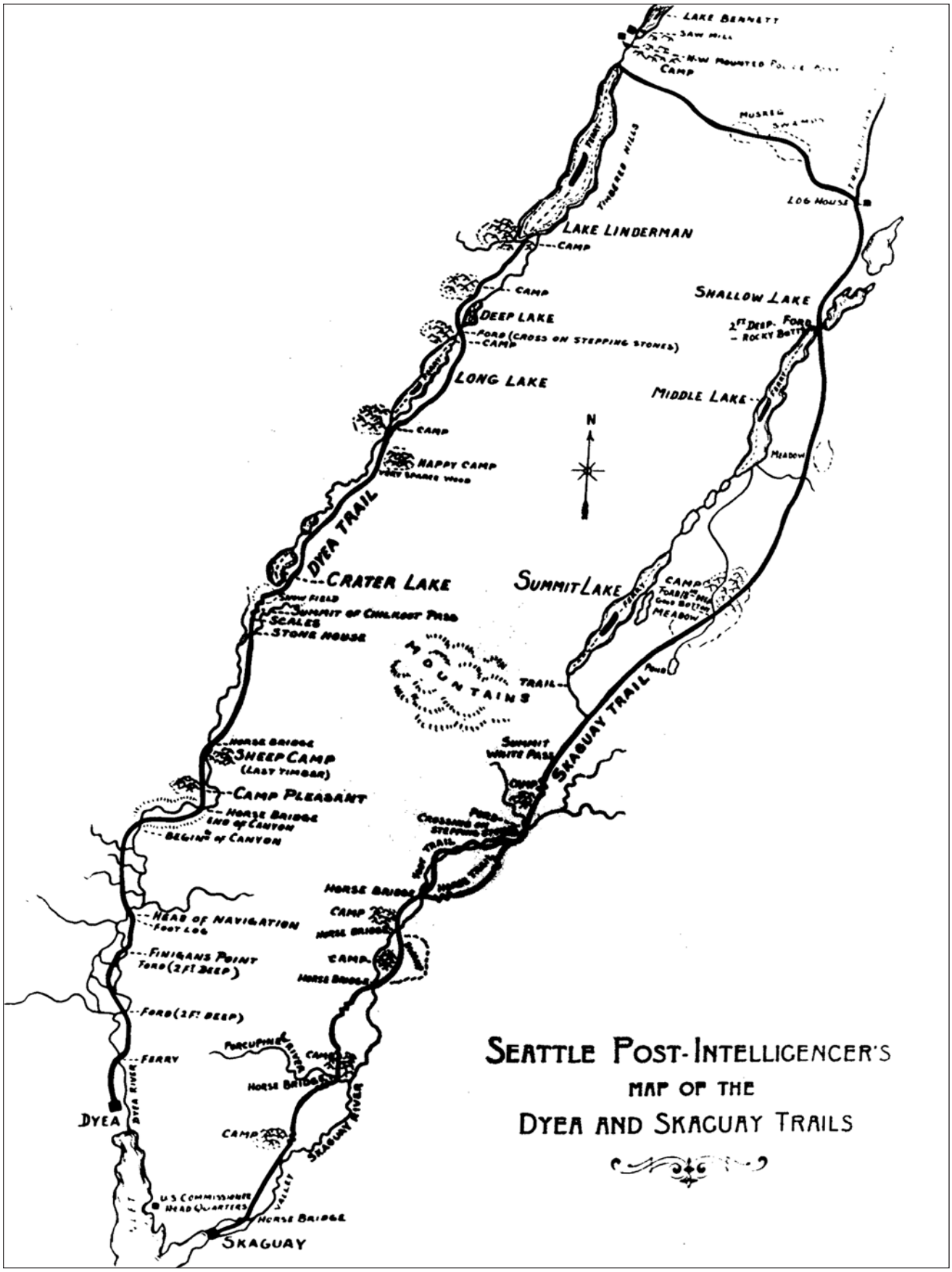
recrossing small branches of the Dyea eight or nine times, to Finnegan's Point (a distance of about five miles from Dyea). The foot-trail makes but two fords in that distance. From Finnegan's Point is a horse-trail one mile to the head of canoe navigation, and thence, over a level waste of sand and loose bowlders, to the mouth of the canyon. From there the winter route follows the bed of the river for two and a half or three miles, between steep forest-clad banks. The summer trail makes boldly up the steep sides of the hill, and, after making several very steep but short ascents and descents, reaching in one place a height of two or three hundred feet above the bed of the river, it drops to the level again at the head of the canyon, and crosses the river on a bridge, the work of private parties, who charge a toll of fifty cents on every loaded horse. The trail thence follows the bed of the stream, which is wide and gravelly, fording again and again, or crossing on logs, to Sheep Camp, fourteen miles from Dyea. The only bad part of the road is in the canyon, but for the most part this has been well corduroyed, so that, no matter how much it rains, there is solid footing. Untrained horses fall here too, but there is a trail; at Skagway there is none, unless mud and rocks suffice to make a trail. Healy & Wilson's pack-train of ten or twelve horses, in charge of two men on horseback, runs daily from Dyea to Sheep Camp, carrying two hundred pounds per horse, returning the same night, with hardly ever an accident. Both horses and men know their business. A good many of the miners push their little hand-carts to the end of the wagon-road, and then pack on their backs or by horse; while others build large flat-bottomed scows or skiffs, into which they pile all their goods, and tow them, with much labor, to the head of canoe navigation.[29]

Even in Adney's brief description of the Chilkoot Trail at the stampede's onset, it is evident that the route had evolved from the Tlingit summer and winter foot trails recorded by Krause in 1883 to a landscape in transition with a mix of foot, horse, and wagon traffic and structures. The map of Dyea and "Skagway" trails, published by the *Seattle Post-Intelligencer* in 1897, is almost as physically indeterminate as Adney's narrative, but similarly catalogues major features on the trail. These include Dyea and the ferry crossing; a two-foot deep ford; Finnigan's Point and a two-foot ford; a foot log crossing at the head of canoe navigation; the beginning and end of the [Taiya River] canyon, with a horse bridge at the upper end; Camp Pleasant; Sheep Camp horse bridge; last timber (treeline); Stone House; Scales and the Summit of Chilkoot Pass. The map's depiction of the trail shows multiple crossings of the river and stream. No mileage between points and no scale are included however.[30]

As seen in the *Post-Intelligencer* map, a number of established campsites along the trail were in existence when the gold rush began in earnest. Many of these sites correspond to landmarks already in place at the time of Euro-American contact and the earliest written eyewitness accounts of the Tlingit trail. However, dramatic changes to these earlier camps and landmarks would occur as a result of the increasingly large number of individuals on the trail between 1897 and 1898. The complexity of the cultural landscape of the gold rush trail far exceeded that of its predecessor in terms of the impacts to the natural environment and physical development – including not only the devestation wrought on the forests for firewood, built structures at the camps and trail features such as bridges, but also the impressive, large-scale engineering systems of the tramways and utility lines. Euro-American settlements on the trail reached their peak in the spring of 1898, and were generally abandoned, along with the trail, with the completion of the White Pass & Yukon Route railroad around 1899.

The Trail Landscape

As early as 1895, the Chilkoot Trail emerged from Dyea, crossing the Taiya River over a long, narrow island where Sam Heron, manager of the Healy and Wilson Trading Post, built a bridge as part of his pack trail improvements (the bridge washed out in 1897). A ferry operated at the site for a short time, and canoe traffic continued to transport stampeders and their freight across the Taiya River. In 1897, L. D. Kinney established a trading post on the right bank of the Taiya near the crossing and by December 1897, had constructed another bridge with a span of approximately 1000' length and 15' width consisting of rough-hewn cross-laid logs and a low log railing along each side.[31]



Seattle Post-Intelligencer's Map of the Chilkoot and White Pass trails, 1897. Seattle Post-Intelligencer, 1897.

Once across the river, the main components of the spring and summer "trail" noted by Adney included both wagon road and foot trail. By April 1898, the improved wagon road had increased traffic to a newly-occupied service area named after its entrepreneurial founder, Mr. Finnegan. Finnegan's Point, the first resting place between Dyea and Canyon City, was located near Irene Glacier and was the second major river crossing. The site offered ferry service, a "foot log bridge," and possibly a corduroy bridge, all established by the Finnegans. While the wagon road ended at Finnegan's Point, (it would soon after be extended up to Canyon City) the foot and pack trails continued to the mouth of the canyon. By April 1898, Finnegan's Point had a section of corduroy toll road traversing the boggy trail to the head of canoe navigation, while the site itself consisted of "a huddle of tents surrounding a hard core of blacksmith shop, saloon and restaurant." An estimate of the distance from Dyea to Finnegan's Point was approximately five miles. Although canoe traffic by the Tlingit packers continued to the head of navigation just north of Finnegan's Point, the existence of the foot, horse pack, and wagon trails to Finnegan's Point clearly minimized the stampeders reliance on Tlingit water transport.[32]

A day's travel from Dyea, Canyon City evolved as the first major stop on the Chilkoot gold rush route, a natural resting place for packers and prospectors before negotiating the difficult canyon and gateway to the upper Taiya Valley. In 1897, Julius M. Price described Canyon City as "the high-sounding appellation of a small collection of rough wooden shanties and tents... We drove up to 'Canyon City' Hotel, a hut somewhat larger than the others, where we proposed to 'lunch' before continuing our journey on foot towards the pass."[33]

The few scattered tents grew into a prosperous village by the spring of 1898, with twenty-five businesses and 1,500 inhabitants spread on both sides of the Taiya River. Further growth included the construction of two tramway stations and power generating facilities (see engineering section below). By April 1898, *The Dyea Trail* described Canyon City as "a new and not unpretentious city – there are comfortable hotels, restaurants, saloons and business houses"[34] By the summer of 1898, the road from Dyea to Canyon City had been significantly improved, although its pioneer character remained. The trail itself remained close to the river, while within the business district, "the trail corridor was abnormally wide...probably due to the grandiose ideals incorporated into the town plat....The trail itself, however, was a rocky, sinuous path less than fifteen feet wide".[35] As with other populated areas on the trail, the surrounding environment was not picturesque, as the demand for wood created areas of severe denudation, accelerating erosion during snowmelt and heavy rains.

The summer trail alignment avoided the narrow canyon between Canyon City and Camp Pleasant, which was impassible during the summertime, but preferred during the winter. The summer trail left Canyon City just south of the CR&T Tramway company complex and struck up the steep hillside. The trail above the canyon was blazed through what was once a dense hemlock and spruce forest. It was a narrow, treacherous route, had numerous switchbacks, and when it rained the horses and men worked the tread into a thick, muddy mess. It was no wonder it was considered one of the most difficult sections of the trail. Even with the occasional stretch of corduroy, the trail above the canyon remained nightmarish, emerging from the dense forest via a toll log bridge with "a corduroy surface and extensive cribbing" to Camp Pleasant.[36]

At the head of the Canyon, Camp Pleasant (about .32 miles before present day Pleasant Camp campground) was a wayside described by travelers as "a romantic spot covered with spruce and cottonwood trees," making it an ideal camping spot.[37] Though not a major stopping point and offering few commercial services, Camp Pleasant was, nonetheless, a welcome one – and aptly named, as it was a flat and attractive area for rest after the strenuous trek from Canyon City. The first documented use of the area was Moore's 1887 account of cache spots during his winter trek. A river crossing at the site prompted the construction of a toll bridge, built in conjunction with the Healy and Wilson pack trail and supervised by their

manager, Sam Heron. Hastily built in order to take advantage of the toll traffic, the bridge washed out in the fall of 1897. Another log bridge may have been built just south of camp shortly thereafter.[38]

Located one mile past Camp Pleasant just below treeline at approximately mile twelve, Sheep Camp was the largest encampment along the trail and marked the beginning of the last leg of the trail's ascent to the pass. In August 1897, Sheep Camp consisted of a small cabin that served as a hotel offering blankets on a plank floor for a shilling (twenty-five cents) each night, and a tent saloon.[39] Despite a major flood in September 1897, Sheep Camp quickly mushroomed from its modest beginning of two stores into a "city" composed of an assemblage of tents and wooden structures more than a mile long, supporting fifty businesses, and with as many as 8,000 people crowded onto its muddy streets. Development came to cover both sides of the Taiya River. Although descriptions of a wagon road from Dyea to Sheep Camp were published in early 1898, the trail remained primarily one for foot and horse traffic. The main summer trail through Sheep Camp, referred to as "Main Street," was the spine of the town's buildings, with several log bridges for minor crossing of the river. A secondary route was aligned along the river bank, avoiding the congestion of the primary trail.[40]

By April 1898, the newspaper *The Dyea Trail* depicted Sheep Camp as:

A rough, rugged, rocky spot with little space for a town site, and today there is scarcely an inch of available ground. It is covered for over a mile square, with tents so thickly set as to prevent one passing between them in any instance. There is but one street and that a semblance of one – it being only about sixteen feet wide, and winds haphazard along the bank of the river. . . There are two drug stores, a hospital, fifteen hotels and restaurants, coffee-stands and lodging houses too numerous to mention. There are also two laundries, a bath house and several store houses.[41]

In July 1898, Mrs. George Black stayed at the Grand Pacific Hotel and wrote, "Look at your woodshed. Fit it up with 'standees,' [persons standing] and you have the Grand Pacific. . . 'private' room—cubicle partitioned off by wooden wall, 2/3 height of room, with bunk filled with hay and covered with 2 pr. grey army blankets and a real feather pillow."[42] Another account of Sheep Camp related how a curious collection of shelters co-existed in the community. The account stated that, "a group of Maoris, fresh from New Zealand, put up strange huts of wattles to keep out the winds, and a Boston medical man brought along a patented aluminum shelter for the same purpose."[43]

As Gold rush Sheep Camp continued to grow, plans for a tramway which would span from Canyon City to the pass came into being. The Chilkoot Railroad and Transport Company introduced the idea of a tramway system in October of 1897. The tramway lines were strung in early May allowing for the official opening of the CR&T's system on May 15, 1898. The tramway led out of the canyon at Canyon City, through the narrow valley seperating the upper and lower valleys, past Camp Pleasant to a second powerhouse just south of Sheep Camp, then straight through Sheep Camp. One tramway pole in particular, stood in a central area of the camp serving as a notable landmark in many historic photos of Sheep Camp. Continuing north, the line followed the west side of the trail and terminated at Stone Crib on the Canadian side of the pass. [44]

Travelers rested at Sheep Camp before making the final push over the pass, usually caching their outfits in stages at two areas beforehand: Stone House and Scales. In general, traffic over this part of the trail was heavier, as parties would often need to make several roundtrips to get their "ton of goods" over the pass. In August 1897, Tappan Adney wrote the following account of his trip from Sheep Camp to the pass:

From Sheep Camp the valley is a huge gorge, the mountain-sides rising steep, hard and bold to a prodigious height. The valley begins to rise rapidly, and the trail is very bad. A mile above Sheep Camp, on the left hand, a huge glacier lies on the side of the mountain, jutting so far over and downward that every moment one expects a great chunk to drop off and tumble into the river. But it does not, and only a small stream of water from its melting forces its way



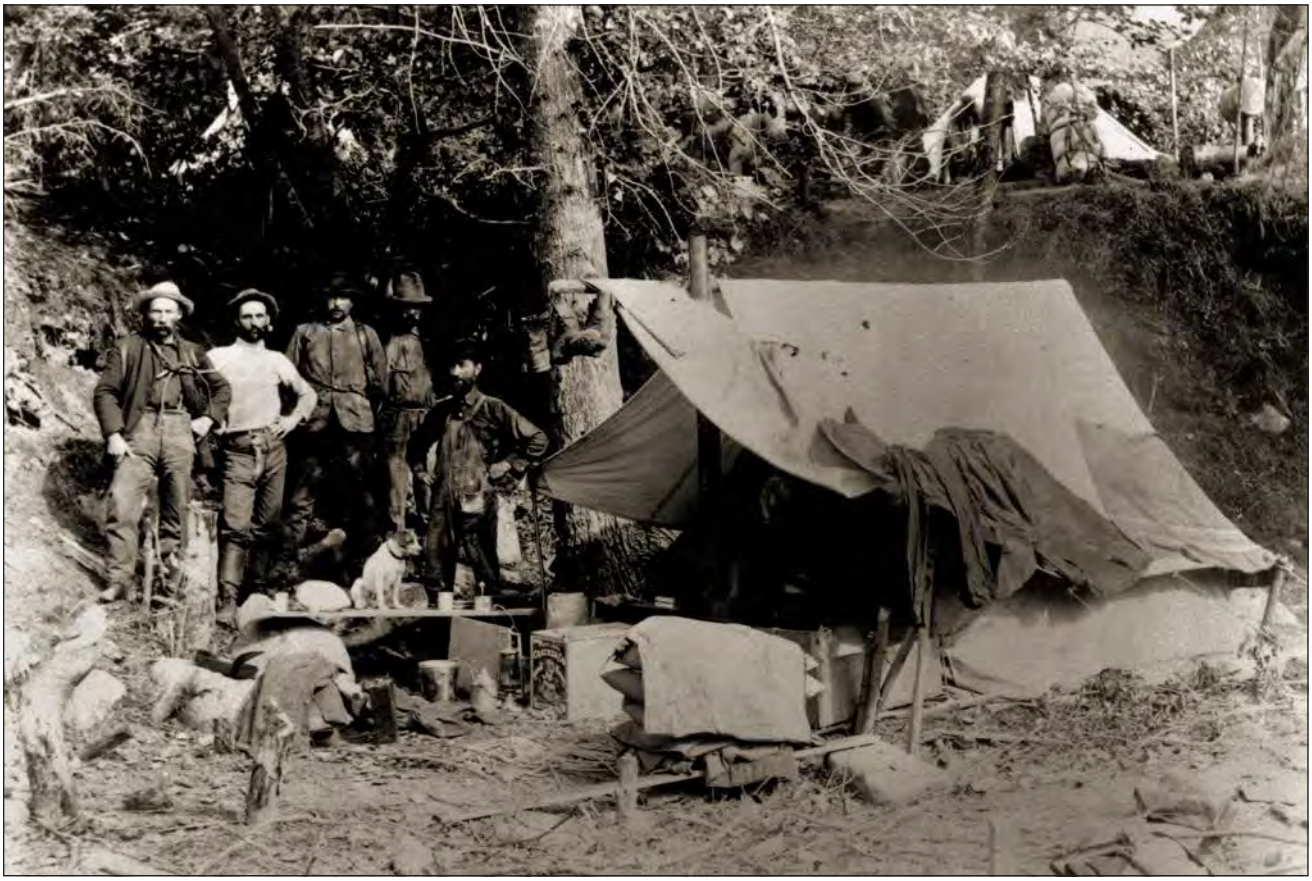
Kinney Bridge, view to east side of the Taiya River, 1898. Yukon Archives, Anton Vogee fonds, #105.



Alleged to be a pack horse and foot bridge near Finnegan's Point, c. 1897. The location of this bridge however has never been verified by archeologists and its existence is questionable, as this image is remarkably similar to the bridge at the head of the canyon near Camp Pleasant. University of Washington Libraries, Special Collections, LAR210.



Stampeder camp on the river bank at Finnegan's Point, Irene Glacier in the upper left hand corner, c. 1897. University of Washington Libraries, Special Collections, UW22048.



Typical stampeder camp site at Finnegan's Point, c. 1897. Library of Congress, 29265/262-47978.



Tlingit with canoe using trump line to navigate lower Tayia River, c. 1897. University of Washington Libraries, Special Collections, LaRoche 2016.



View from hillside of upper Canyon City, looking down valley, c. 1898. Yukon Archives, Anton Vogee fonds, #58.



Canyon City lodging, 1898. Yukon Archives, Anton Vogee fonds, #57.



Tramway in operation out of Canyon City, c. 1897. Note the plank bridge across the river. University of Washington Libraries, Special Collections, Hegg 84.



Canyon City lodging, 1898. Alaska State Library, William R. Norton Photographs, ca. 1890-1920; ASL-P226-130.



The beginning of the summertime trail above the canyon near Canyon City, note the rough trail conditions and the devastated timber on the hillsides. c. 1897. University of Washington Libraries, Special Collections, Klondike 234.



Trail conditions on the summer trail above the canyon, 1898. Stereographic Library Collection, ca. 1800-1910, UAF-1975-0178-22, Archives, Alaska and Polar Regions Collections, Rasmuson Library, University of Alaska Fairbanks.



Trail conditions on the summer trail above the canyon, with corduroy and tramway, 1898. Yukon Archives, T.R. Lane Collection, #1382.



Camp Pleasant, c. 1898. Alaska State Library, Arthur Clarence Pillsbury Photographs, ASL-P230-09.



Camp Pleasant bridge, 1898. Image A-5099 courtesy of Royal BC Museum, BC Archives.



Sheep Camp Glacier and an early view of Sheep Camp, 1897. Image D-2051, courtesy of Royal BC Museum, BC Archives.



Tent camp at Sheep Camp, view down valley, c. 1897. University of Washington Libraries, Special Collections, Curtis 46118.



A later view of Sheep Camp, note tramway tower and lines, 1898. Ralph MacKay Collection, UAF-1970-0058-00226, Archives, Alaska and Polar Regions Collections, Rasmuson Library, University of Alaska Fairbanks.



Lodging and commerce at Sheep Camp, 1898 Stereographic Library Collection, UAF-1993-0027-6, Archives, Alaska and Polar Regions Collections, Rasmuson Library, University of Alaska Fairbanks.



Lodging and commerce at Sheep Camp, note tramway tower, 1898. Stereographic Library Collection, UAF-1975-0178-00022, Archives, Alaska and Polar Regions Collections, Rasmuson Library, University of Alaska Fairbanks.

to the bottom. A mile farther on is "Stone House"—a large square rock, crudely resembling a house; it stands on the river's bank. At the base of the mountain is a great mass of slide rock, some of the bowlders being nearly as large as the one by the river. Some of these rocks have piled on top of one another so as to form small caves, which the Indians use for shelter. These are also called "Stone Houses." The valley here makes a sudden turn to the right, and the trail begins to grow steep. The valley is filled with great water-and-ice-worn bowlders. The trail climbs from one to another of these. There is no vegetation, save a few alders here and there, and these cease just above "Stone House." The trail enters a cul-de-sac, climbing higher and higher. The valley seems to end; a precipitous wall of gray rock, reaching into the sky, seems to head off further progress, seaming its jagged contour against the sky—a great barrier, uncompromising, forbidding—the Chilkoot Pass.[45]

Despite Adney's characterization, the location of a singular Stone House, a Native landmark in the 1883 accounts of Krause and Schwatka, seems to have been less certain during the 1897-98 period, probably due to the combination of its generic site description within ubiquitous terrain and vague environmental setting. An eyewitness account surmised that the glacial lake outburst that devastated Sheep Camp also dislodged Stone House, moving it a quarter of a mile down the canyon.[46] Nevertheless, the use of the Stone House cache area continued even after the devastating flood, and the Stone House vicinity continued to be a geographical landmark, particularly in the absence of snow, because of its general location above treeline in a relatively level area between two branches of the upper Taiya River.[47]

Above Stone House, the trail quickly climbed out of the forested valley, up what would become known later as "Long Hill" and onto the rocky upper slopes to Scales, the last stop before the pass. A horse trail built in 1897 between Stone House and Scales did little to improve the poor quality of the rock-strewn route.[48]

At the Scales, the head of the valley formed a narrow U-shaped bowl, "like a big basin in the top of the mountain" with the Chilkoot Pass ascending on the left side.[49] Surrounded by precipitous mountainsides, the area was prone to avalanche, and a little further down valley was the site of the April 3rd Palm Sunday Avalanche of 1898 where numerous people lost their lives.

Referred to by name as early as Ogilvie's 1887 account, "Scales" was the place where cargo was

often re-weighed and packers negotiated for higher rates given the arduous climb to the summit – an ascent so steep that pack animals could not be used — and therefore the stampeder had little choice but to pay the increased rates or pack their gear on their own backs. In a letter from Sheep Camp dated March 24, 1897, F. Brewster Fay wrote that, in an attempt to capitalize on the packing dilemma, one entrepreneur had "made great preparations in the way of a tram-way to get outfits over the summit... the horses walk around a drum, around which one end of the rope winds, the other being fastened to the sled."[50]

The trail entered Scales from the southwest, forked in the midst of the camp as the main trail and the infamous 'Golden Stairs' continued to the left, and the longer but arguably easier 'Peterson Route' continued to the right.[51] In contrast to other, more established sites such as Canyon City and Sheep Camp, Scales was a temporary and topographically constrained development, which showed through its 'ramshackle' and sprawling appearance.

The final stretch to the summit from the Scales generally followed one of two routes. During winter, the 'Peterson Route' or the 'Golden Stairs' were the only choices. In summer there were many choices over the sprawling, talus filled bowl, most of which converged at the false summit, then led through the narrow gap at the top, otherwise known as the Chilkoot Pass. However most people generally stuck to either the Peterson or Golden Stairs routes, even in the summer. The Peterson Route met up with the Golden Stairs route near the Canadian border. This route however was much longer, and lacking snow the quicker, steeper, Golden Stairs route through the gap was much preferred. In early winter 1898, a set of steps and resting ledges were carved into the slope and this is probably when the route started to be known as the "Golden Stairs". To get back down in winter users of the Peterson route probably walked back down the trail. Users of the Golden stairs however slid down a chute in the snow created for this purpose. Historic photos show this chute approximately 15 to 30 feet to the right of the stairs. [52] Traveler Julius Price characterized the staircase up to the summit (although he mistakenly believed the steps to be the result of use, not design): "Without exaggeration I should say the angle must be about 45 degrees. A thick rope-line has been fixed to posts the greater part of the way to enable the carriers to pull themselves up the series of steep steps in the deep snow that have been formed by the thousands of persons who have passed this way during the last twelve months".[53]

Weather conditions further exacerbated the trek to the summit, with howling winds, deep snowfall, icy conditions in winter, loose footing, and often wet, slippery boulders on the talus slopes in summer.

Several business enterprises were proposed when it seemed as if the Chilkoot Trail would be the major and permanent transportation route to the Yukon interior. In July 1897, an *Alaska Searchlight* editorial bemoaned the lack of a reliable mail route from Juneau to the Yukon:

What we want is a mail in and a mail out each and every month of the year. It can be done. Let a four years' contract be given to responsible parties. Cabins could be built and provisioned every fifty miles from Dyea to Circle City. A man could be stationed at each of these posts and dogs could be kept there. The mails could be forwarded from post to post at any and all seasons of the year.[54]

At the same time, newspaper accounts reported herds of cattle and sheep being driven up the Chilkoot Trail. On July 10, 1897, the *Alaska Searchlight* noted that George F. Miller had gone to Seattle to purchase 600 to 800 head of cattle for the Yukon trade: "They will be taken in over the Chilkoot Trail, driven as far down the river as possible before the weather gets cold enough to stop navigation, then slaughtered and the beef floated down on rafts just before the river closes." Two weeks later, the same paper reported that Miller was driving 1000 sheep over the Chilkoot pass.[55] Archie Burns said that the trail was a practical route and had run a herd of nine cattle and two horses from Dyea to Lake Lindeman in twenty hours, probably utilizing the Peterson Route.



Stone House camp and cache area, the Sheep Camp flood of 1897 originated from a glacial outburst at the top of this drainage visible in the upper center of the image. The upper Taiya is to the right. 1898. University of Washington Libraries, Special Collections, UW 22056.



Stampeders leading a pack train up Long Hill in summer time. This shot was taken about 1/4 mile upstream from the image above, 1897. University of Washington Libraries, Special Collections, Klondike 235.



Summertime view of 'Scales', the pass is not visible here but the trail up the Golden Stairs is barely visible in the upper right-center of this image. c. 1898. National Archives 76-AL-7-A7-8486.



View down the upper valley from the pass, 1898. Note the two massive lobes of Sheep Camp glacier and compare them to the modern images elsewhere in this document (Chapter 3, Zone 5). LaRoche, Library and Archives Canada, C-28649.



View down upper valley from mid-way up Golden Stairs in winter, 1898. Stereographic Library Collection, UAF-1975-0178-00025, Archives, Alaska and Polar Regions Collections, Rasmuson Library, University of Alaska Fairbanks.



Stampeders navigating the treacherous talus and boulder fields in the pass area, 1898. LaRoche, Library and Archives Canada, C-028646.

Gold Rush Trail Engineering: The Tramways

By the time the Klondike Gold Rush had wound down, there were three aerial tramways in operation over the Chilkoot Pass. Two tramways in particular – those belonging to the Chilkoot Railroad and Transport Company and the Dyea-Klondike Transportation Company – were noteworthy engineering feats; the CR&T's tramway had the world's longest unsupported span at the time (2,200 feet through Scales) and the DKT's tramway was one of the first to be powered by electricity.[56] Stampeders making the trek to the pass on foot were impressed with the powerful tramway systems, which seemed to taunt them as they climbed slowly by:

The Aerial Tramway ran alongside the trail most of the way, so we had an opportunity of admiring its wonderfully ingenious workmanship, whilst not a little regretting that human freight could not be taken by it. An aerial tramway is a steel moving cable, hung on trestles: on this cable run at intervals "buckets," slung by means of grooved wheels; these buckets carry the freight.[57]

Several surface hoists were also constructed over the Chilkoot Pass during the gold rush era, the earliest of which was installed by P.H. Peterson and Archie Burns. After an initial try in 1894, Peterson's second attempt in 1896 – a gravity hoist – proved to be very profitable. On February 17, 1898, however, Peterson reportedly leased his operation to J.E. Hielscher of Dyea for five months – the peak months of the gold rush. The exact location of Peterson's tram is unknown.[58]

Eager to take advantage of the anticipated rush of stampeders over the Chilkoot Pass, Archie Burns, entrepreneur and businessman, staked his claim on the summit of the Chilkoot Trail in late 1896. Not long after, Burns' horse powered tramway was in operation over the Chilkoot Pass. This tramway, which was maintained through the spring of 1897, was later purchased by a Juneau merchant named C.W. Young, under whose ownership Burns would operate several additional trams at various times throughout the coming years (none were aerial). By January of 1898, Burns had begun operating a motorized tramway.



Classic winter scene of Scales, the Golden Stairs, and Peterson Route,1898. Note trench like paths to the right of main line of people. These were used for a quick retreat back down to Scales for another load of provisions. University of Washington Libraries, Special Collections, LaRoche 2132.



Another view of the Golden Stairs in winter, 1898. Note 'gasoline tramway' sign and tramway tower. Stereographic Library Collection, UAF-1975-0178-00027, Archives, Alaska and Polar Regions Collections, Rasmuson Library, University of Alaska Fairbanks.

The Dyea Trail reported further development of this operation, proclaiming that "a steam engine for handling Burns' cable [was] being placed on the summit."[59] For two months, this was the only tramway that ran directly up the Chilkoot pass, and was, by late February 1898, lifting five tons of goods from the Scales daily. By mid-April, Burns introduced a gasoline powered tramway, described as "simply a pulley drum and gasoline engine at the summit of the pass, and enough rope to reach the bottom". Though the gold rush began to fade, Burns was confident that business would thrive; numbers continued to fall, however, and Burns was finally forced to shut down service in early spring of 1899. One artifact from Burns' enterprise remains on the trail: a gasoline engine/winch which lies midway between the false summit and the top of Chilkoot Pass.[60] . Recent histoical evidence also suggests that the Boiler artifact near Scales may also have been from the Burns enterprise.

In September 1897, the Dyea-Klondike Transportation Company (DKT) entered into the Chilkoot Trail tramway business, claiming a site along the west side of the Taiya Inlet, three



Gasoline powered tramway winch, now resting near false summit at top of Golden Stairs. S.L. Ferreira, National Park Service Alaska, Cultural Landscapes Program, 2003.

miles south of Dyea. The DKT's initial plans involved a "coordinated transportation system" from Dyea over the pass, but competition from other entrepreneurs as well as financial limitations prompted DKT to scale back such aspirations. Instead, the DKT chose to focus on implementing a tramway that went between the Scales and the summit. Construction of a wharf proceeded simultaneously, and a boiler and adjoining dynamo (for the operation of a bucket-type tramway system) may have been moved up to Canyon City during the fall season. A seven-mile long power line, running from the power plant at Canyon City to the Scales, was to transmit electricity for DKT's operation.[61]

Built on a rock ledge near Scales, the powerhouse was the backbone of the tramway system and was positioned so as not to interfere with other operations. It was constructed of vertical-wooden



DKT Powerhouse. Photograph 15B, RG 200 (S) - BR, "D.L. Brainard's Family Albums", Volume 1A, National Archives.



Alternate view of DKT Powerhouse. View south down the valley. University of Washington Libraries, Special Collections, Hegg 99.

boards, and consisted of "two parallel, offset, simple gable buildings, with one wall partially common to both buildings". The powerhouse, cables, and small towers (that carried 2,400 feet of cable), were erected during the winter of 1897-98. DKT opened the tramway on March 14, 1898, and for one month it was the only aerial tramway in use over the pass.[62] The historic powerhouse site has never been definitively located, although it is suspected to have been about 100 ft. south east of where the modern interpretive signs are at Scales.

In early December, 1897, the Alaska Railroad and Transportation Company (AR&T – also known as the Alaska Pacific Railway Company or the Oregon Improvement Company) claimed a trade and manufacturing site in Pyramid Harbor (twenty miles south of Dyea), that included a thirty-six acre wharf site on the east side of the Taiya Inlet approximately two miles southeast of Dyea, and a ten acre station and warehouse site just north of the townsite.[63] Though built later than the DKT tramway, the AR&T operation was a more sophisticated tram system with a longer



The only remaining boiler at Scales. This may have been the boiler for the DKT operation, although it is possible it was a component of the Archie Burns tramway enterprise at Scales. S.L. Ferreira, National Park Service Alaska, Cultural Landscapes Program, 2003.



AR&T Powerhouse. Photograph 16B, RG 200 (S) - BR, "D.L. Brainard's Family Albums", Volume 1A, National Archives.

length, and the ability to carry more freight than the DKT's. Abandoning the original plan to build a railroad from Dyea to the summit, AR&T's gasoline-powered tramway was in operation by mid-April, 1898.[64] The powerhouse, part of which was constructed on pilings, was located north of Stone House at the upper end of Long Hill. The tramway terminus was at the top of the pass. Archeological Surveys from 2001 describe what is left of the building:

CT252 consists of the remains of the southern terminal building of the Alaska Railroad and Transportation Company (ART) aerial tramway and a few associated artifacts. Colloquially known as "the ART Powerhouse," the terminal building at Long Hill was a two story, gable roofed, timber framed building about 45' x 105' in size. In addition to housing the southern terminal sheave and the drive mechanism of the tramway, the building must have functioned as a warehouse and possibly as a bunkhouse for workers. It was the largest building anywhere along the U.S. side of the Chilkoot Trail north of Dyea and is now the single most massive archaeological feature of Klondike Gold Rush National Historical Park's (KLGO) Chilkoot Trail Unit.[65]

The longest, most sophisticated, and best known aerial tramway was constructed by the Chilkoot Railroad and Transport Company (CR&T), beginning operation in May 1898 (start dates vary from May 7 to May 24).[66] The tram line began at its powerhouse located on north end of Canyon City and spanned nine miles to Stone Crib, near Crater Lake, one-half mile north of the U.S.-Canadian border. From Canyon City, the tramway lines made their way up the east side of the canyon then crossed the river near Camp Pleasant and continued along the west bank to a second powerhouse and transfer station just south of Sheep Camp, where the first cable ended and the second loop began. North of this location, the tramway lines went right through Sheep Camp, largely following the Chilkoot Trail, and crossing it in several places. Various tension stations were situated along the route, one ruined station can be seen at mile 14.9, perched atop a knoll overlooking Long Hill.[67] Early photos show the tension station in this location to be nothing more than an ad-hoc jumble of timbers thrown together to support the tramline. Later images in 1922 however, indicate the station structure had



Ruins of the AR&T powerhouse below Scales at the top of Long Hill. S.L. Ferreira, National Park Service Alaska, Cultural Landscapes Program, 2003.



CR&T tension station structures, c. 1922. Rapuzzi Collection, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library, 00594.

been formalized and an outbuilding added.

In June 1898, the three aerial tramway companies, DKT, AR&T, and CR&T signed a working agreement to charge a uniform rate to haul goods between tidewater and the lakes.[68] A year later, in late June 1899, the White Pass and Yukon Route railway (WP&YR) purchased all the tramway systems. As late as September 1899, work crews were still repairing the Chilkoot tramway: "Two of the towers are being replaced, some of the wire cable is being replaced where it is worn and snow sheds are being constructed...engineers have been retained at the power stations, but of course this is necessary to keep the machinery in condition."[69] A former Dyea resident explained his idea of the railroad's plan for the Chilkoot tramways:

I think the intentions of the railroad people are that they will keep the tramway in order for immergency [sic] use in the winter time. An unusually heavy snowfall for 24 hours would necessarily blockade traffic on the railroad for some little time. If snow will tie up a transcontinental railway in the states, it can be expected that it will cause trouble in Alaska. There is little travel in winter and most of the freight will be light stuff, for such can be carried ot [sic] an advantage on the trams.[70]

Nevertheless, in order to curb competition, the WP&YR began dismantling the tramway systems on February 1, 1900:

All that remains of the once magnificent system of tramways over the Chilkoot Pass now lies in a heap in a warehouse of the White Pass & Yukon Railroad at the north end of Skagway...Included in the material brought here are 45 miles of cable, three steam engines and one gasoline engine.[71]

The Chilkoot Trail evolved into an industrial landscape far beyond the wildest expectations of early entrepreneurs operating during the contact period between Native Alaskans and Euro-Americans. By the end of the gold rush, the lone stampeder ascending a mountain pass burdened by his goods was largely a mythic image. In reality, thousands of prospectors lined the Chilkoot Trail – a modern transportation route with an underlying



CR&T tension station ruin, detail view. S.L. Ferreira, National Park Service Alaska, Cultural Landscapes Program, 2003.

infrastructure engineered to accomodate heavy commercial traffic. The trail continued to operate as such until the construction of the neighboring White Pass and Yukon Route railroad.

Although local businesses hoped for the continued success of the Chilkoot Trail as a trade corridor, use of the trail was sporadic. The waves of stampeders rose and fell within the short period of two years, 1897-1898, stopping almost overnight when the WP&YR railway was completed from Skagway to the summit of White Pass in the winter of 1899.

Abandonment, "Rediscovery," Recreation and Commemoration, 1899-Present

Abandonment and Rediscovery

After its gold rush heyday, the Chilkoot Trail quickly became unused and overgrown. Many of the hastily built structures along the trail were dismantled for firewood or timber; any other gear and machinery that could be moved was brought off the trail, either by the WP&YR or by scrap hunters. While a vast array of artifacts and structural remnants remained, the forest and harsh climate quickly covered or degraded them. Technology in the form of the WP&YR railroad had swiftly and irrevocably terminated the Chilkoot Trail's importance as a major transportation corridor, and nature would soon reclaim the Taiya River Valley.

In September 1899, an article in the *Alaska Mining Record* reported: "Dyea trail at the present presents a desolate appearance. From Dyea to Lindeman there is not a restaurant or hotel to be found and if a traveler wishes to go over the Dyea trail he must carry his own blankets and grub—a return to the conditions existing before the rush of '97."[72]

In 1906, International Boundary Commission surveyors retraced the Chilkoot Trail to determine the boundary and to set up monuments. O.M. Leland, chief of the American party, summarized the existing conditions of the trail, stating that it was overgrown and many of the bridges were failing, but that most of the buildings at Sheep Camp and two at Scales were still standing.[73] Between 1910 and 1925 local resident George Rapuzzi made four trips up the deteriorating trail from the American side. In 1924 he guided an MGM movie crew up the trail, and found that the trail from Dyea to Canyon City was still passable, even after twenty-five years of neglect.[74]

Due to the trail's deterioration, recreational hiking was sporadic for a half-century. In July 1928, Florence Clothier and her brother Lou climbed the Golden Stairs after three days of hiking through dense brush, staying in abandoned cabins at Finnegan's Point, Canyon City, and Sheep Camp.[75] By the 1930s, increasing numbers of people began to use the trail for recreational purposes. In 1933, Reverend G. Edgar Gallant, superintendent of Skagway's St. Pius X Mission, began taking small groups of students over the trail.[76] At the same time, Bryne Beauchamp, a school teacher from Honolulu, Hawaii, organized annual tours, which included



Rapuzzi/MGM group crossing the Taiya near confluence of West Creek, 1924. Rapuzzi Collection, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library, 00577.



Rapuzzi/MGM group trying to follow the old wagon road up the lower Taiya Valley, 1924. Rapuzzi Collection, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library, 00571.



Rapuzzi/MGM group hiking the canyon separating the lower and upper Taiya valleys, 1924. This location looks remarkably similar to the 10 mile bridge site on the contemporary trail. Rapuzzi Collection, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library, 00576.



Rapuzzi/MGM group crossing the upper Taiya near historic Camp Pleasant, 1924. Rapuzzi Collection, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library, 00576.



Ruins of Historic Sheep Camp, view up valley, Sheep Camp Glacier visible in the background, 1924. Rapuzzi Collection, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library, 00571.



Rapuzzi/MGM group approaching the AR&T Powerhouse and the top of Long Hill. Also note the CR&T tension station on the knoll, 1924. Rapuzzi Collection, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library, 00583.



Rapuzzi/MGM group beginning their ascent of the Golden Stairs, 1924. Rapuzzi Collection, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library, 00585.



Member of the Rapuzzi/MGM group with his movie camera at the pass, 1924. Rapuzzi Collection, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library, 00586.



The Hosford kids at the sawmill camp, c. 1950. Photo courtesy of the Hosford family, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library.

hiking the trail and building boats to float down the Yukon River to Circle City, Alaska.[77]

When the Alaska Road Commission constructed a road to Dyea, between 1940 and 1948, interest in hiking increased with improved access to the area. Around 1947, Al Nelson, a local resident of Dyea, blazed a crude trail from the Steel Bridge up the eastern river bank to avoid a river crossing. Marked by axe cuts on trees or "blazes" this section of the trail would later become known as "Saintly Hill" due to its arduous climbs and descents in such a short stretch of trail. In 1948 Phillip Allen hiked the Chilkoot in reverse (Bennett to Dyea) and published his journey in a travelogue published in 1992.[78]



Hosford operating the mill, c. 1950. Photo courtesy of the Hosford family, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library.

Between 1900 and 1946, trail use largely consisted of informal recreational hiking until the development of the Hosford sawmill complex, a logging operation in existence from 1948 to 1956. Edward Hosford sited the complex to take advantage of a "large stand of commercial grade spruce trees," between West Creek (west bank of Taiya) and the logging road (eastern bank of the river). There he built a cabin, sawmill, and storage shed at the site. Logging operations extended north and south from the cabin, reaching as far north as Finnegan's Point. The primary access to the

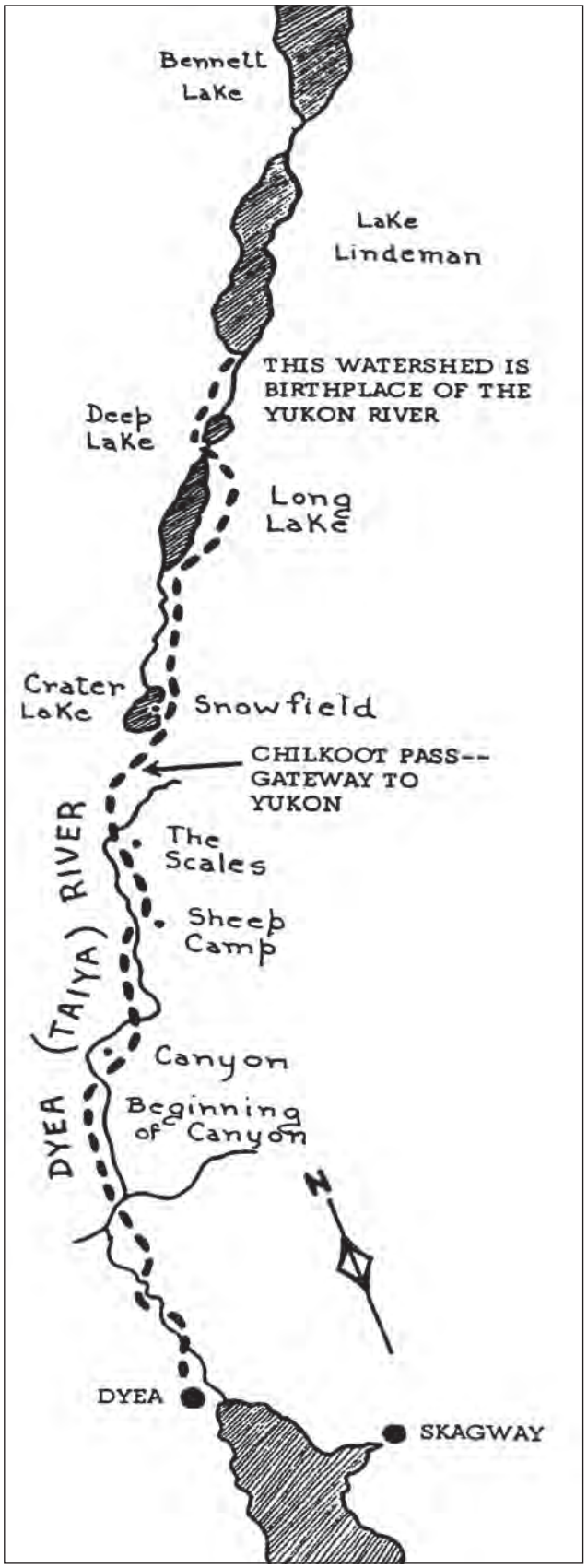


Aerial view of logged out area just below Finnegan's Point, 1971 Photo courtesy of T. R. Merrell, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library.

site consisted of a north-south logging road constructed in 1948-49 that may have followed in places the historic summer trail to Finnegan's Point on the east side of the river. Operations at the sawmill complex ceased around 1956, and the site was abandoned. Portions of the logging road were adapted for recreational hiking by the State of Alaska in commemoration of the Chilkoot Trail, and remain part of the recreational trail as it exists today.[79]

Robert & Wilma Knox

Anchorage residents Robert and Wilma Knox and their friend, Richard White, hiked the Chilkoot Trail in July 1957, and a part of it again in July 1959. Each wrote journals that detailed the experience. Although they asked local Skagway residents about the trail, "we never did find anyone who had made the trip."[80] In 1957, after traveling by taxi nine miles from Skagway to Dyea and crossing the first bridge, the group was dropped off and began their hike in the late afternoon of July 2nd.[81]
It is unclear how they got across the Taiya River,



Field Map by Richard White of their trip up the Taiya valley in 1957. Robert & Wilma Knox Papers, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, Series 9.

but they probably forded it and followed a road to the site of the abandoned Hosford logging camp and sawmill. The road was muddy, with a few small streams crossing it, and flanked by "good-sized timber" that obscured the view of Dyea and the mountains. After the sawmill site the road began to become untenable due to flooding which eventually forced the party to the east along the hillside where they came across a glacial stream flowing heavily from Mt. Carmack.[82] They climbed further up the talus covered hillside and decided to camp at this point. From their camping spot they could see across the river to Irene Glacier and Mt. Yeatman. On July 3, the first full day of the hike, the group encountered dense underbrush consisting mostly of devil's club and alders, "in places we found the trail well-blazed, in others its [sic] impossible to find the right way and you just have to pick the easiest way possible, keeping between the river and the mountains there's no way of going far wrong."[83] Wilma Knox wrote "there was nothing that remotely resembled a trail."[84]

After fording seven streams, the Knoxes and White camped on the eastern side of the river near the mouth of the canyon where the historic trail strikes up the hillside. Wilma remarked in her journal entry for that day how "from time to time we ran across blazes on some of the larger trees and for me, at least, it was a highlight of the trip when we came across one of the original blazes with the words 'Canyon City' just barely legible inside the encroaching bark."[85] Despite the overgrowth of vegetation, the Knoxes noted the remains of a lean-to, several dilapidated log cabins, and an iron stove between the hillside and the river's edge.[86] The following morning (July 4th), they struck out up the historic trail trace which Bob described as "steep but deeply ground into the earth and well marked". Soon they encountered the first remains of power poles, some of which were still standing with cross arms, green glass insulators, and line strung from pole to pole, but found that most of the wire lay on the ground.[87] They ended their day somewhere in the upper valley but below historic Sheep Camp.

On July 5, the hikers followed the river bank, fighting the dense underbrush, and found no sign of a trail. They followed a large stream for about an hour, thinking it was the Taiya, then realized it was a tributary and turned back. Bob remarks that because of these difficulties they made very little progress that day. It is unclear as to where the group camped that night, but Robert Knox described the river in that spot as very narrow, with fairly steep rock walls, and no gravel bars, which suggests they may have been near the upper canyon somewhere between Sheep Camp and Stone House.[88] The following day (July 6th), Bob wrote that they decided to climb higher up to avoid the dense underbrush of the day before, but found the footing treacherous among the giant boulders they encountered. Moving lower they found no underbrush, but spruce trees so thick that they had to crawl on hands and knees in several places.[89] Eventually their route emerged from stunted timber and brush onto rocky slopes: "Temporary signs have been painted on boulders but these are hardly necessary for the hiker can scarcely get lost as he clambers up the narrowing valley through a fantastic world of jumbled boulders, granite hogbacks and snowfields."[90] The group camped somewhere near Stone House that night, on the east side of the river. On July 7th, the group had finally made it to the foot of the pass, and the ground became mossy underfoot with some small alpine flowers interspersed among the rocks, Robert Knox noted that he "even [could] see traces of the trail."[91]

Wilma Knox recorded Scales as a place where they found the collapsed remains of many buildings, "flattened into piles of lumber that resembled giant toothpicks."[92] Also evident were an abundance of horse skeletons, the remains of the tramway, iron poles placed into the rock with insulators on top, and flattened, fallen wood frames. A few structures remained partially standing: "One large one on [a] little knowl [sic] looked like a messhall and or bar. Could see large kitchen range under fallen wood. Lots of chinaware scattered about, plates, cups, saucers, etc. Some of it amazingly still unbroken. Also several earthenware stone crocks but broken."[93]

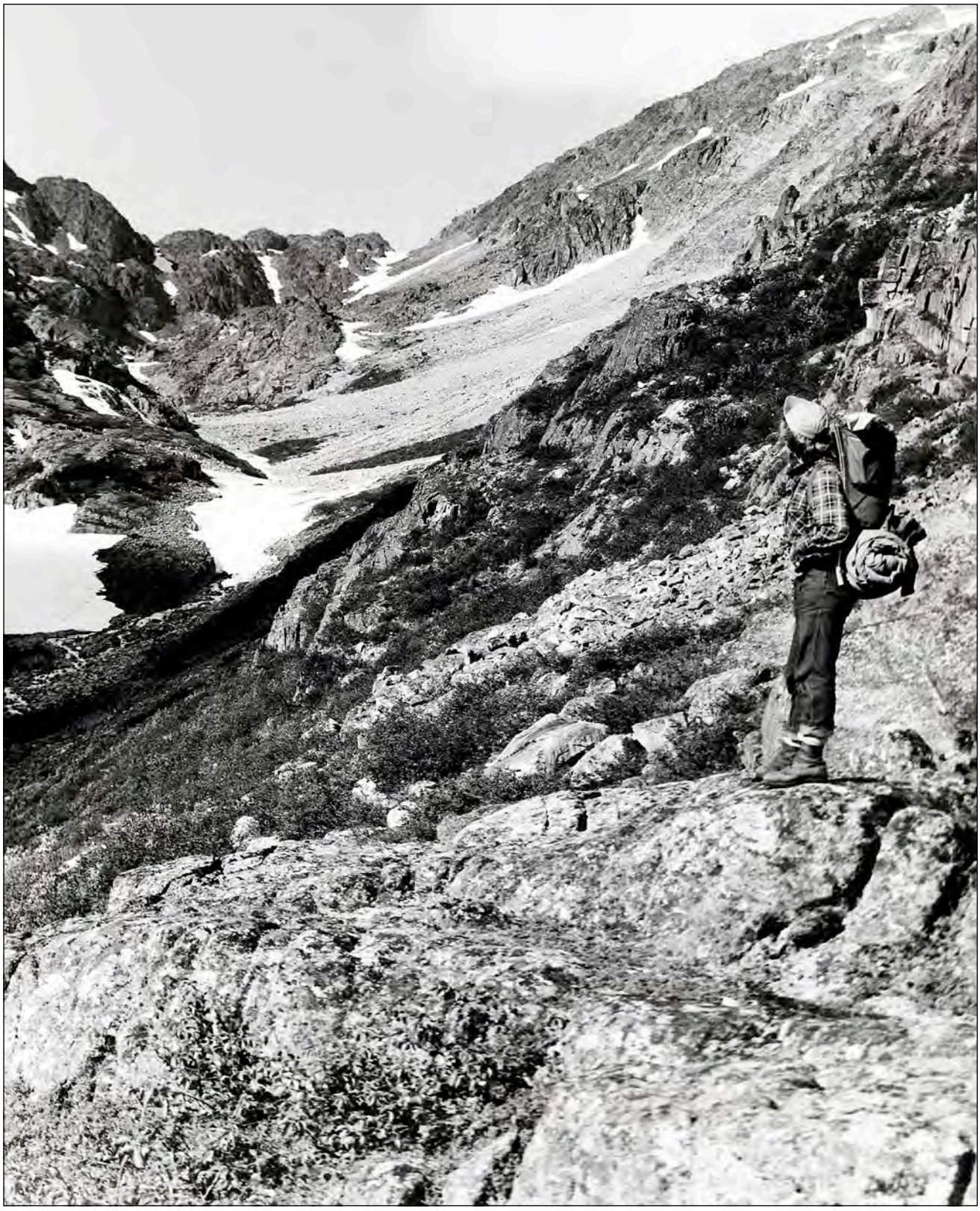
According to their accounts, the Knox's ascent over the pass was carried out under conditions similar to those encountered during the gold rush:



Wilma Knox at Canyon City historic site, 1970. Robert & Wilma Knox Papers, Archives & Special Collections, Consortium Library, University of Alaska, Anchorage, Series 17, Subseries 17b, #1065B.



Wilma Knox near historic Sheep Camp looking down the upper valley, 1957. Robert & Wilma Knox Papers, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, Series 17, Subseries 17b, #82B



Wilma Knox looking up the upper valley above Long Hill towards the pass, 1957. Robert & Wilma Knox Papers, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, Series 17, Subseries 17b, #83b.



Robert Knox on Long Hill, looking down the upper valley, Sheep Camp glacier visible upper right, 1957. Robert & Wilma Knox Papers, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, Series 17: Subseries 17b: #1078B



Robert Knox resting near AR&T powerhouse ruin, CR&T tension station visible in background, 1957. Robert & Wilma Knox Papers, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, Series 17, Subseries 17b, #1073B.



Wilma Knox resting at Scales next to the 'pleasure dome', 1959. Robert & Wilma Knox Papers, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, Series 17, Subseries 17b, #1080B.

The pass rises at a 40-degree angle some 1,500 feet above the valley floor. Of the three declevities making up the pas as a whole, we prefer what is called Petterson? Pass, at the extreme right. This route angles up over a field of boulders, turning one-third of the way up into a rocky chute that leads directly onto the summit. Just to the left, and preferred by some because of its shorter length, is the steep chute of the pass proper, the famed scene of the 1,500 steps carved out of ice and snow. (The lower portion of this route must be climbed with care in summer as it is composed of loose, sliding scree.)[94]

On their second trip in 1959, the group hiked the trail from the Canadian side down the pass and camped at Scales. They made a day trip down to Sheep Camp and then returned to their camp at Scales to rest. The folowing day they returned to the Canadian side to catch the train at Lake Bennett. Richard White's journal from this trip recorded some of the sites in more detail, and also noted changes that had occurred since their trip in 1957 (See Appendix A). White also noted that Robert Knox shot black and white photographs of the descent from the Chilkoot Pass, attempting to duplicate some of the E. A. Hegg photographs taken in 1898 at the peak of the gold rush.[95]

In the Scales area, White observed that a fireplace had been built since their last visit; that "the scales that had been intact has been dismantled;" and that there was less china "lying around" than there had been two years before.[96] Near Stone House, White recorded that they climbed up the mountainside to a windlass, tram cable, a fallen tower, and a grooved wheel.

On the hike to Sheep Camp, the group followed a dim trail through the rocks on the mountainside. White describes the glaciers and streams, but also describes a tramway tower and a collapsed building overlooking the Taiya, about 100 yards north of the camp. Once at the camp they explored and came across a rather large ruin which White estimates to be about 75 ft. long and 25 ft. wide:

...it lies flat, grey timber gables and roof timbers having fallen in across the flooring. A stream runs through one corner of the building and I'm reminded of a hotel said to have been erected at Sheep camp by a midwestern family and through which ran a stream providing running water in summer. I also wonder if this could have housed Clix's hospital. Among the old boards we find iron pots, sulphur, pans & basins in nest with about nine disintegrating iron cups.[97]

After returning to Scales, White mentioned that the group, "always above timberline," used boards from the old buildings to fuel their fire. Climbing up the pass from the Scales, White pointed out that they came across numerous items dropped by the Klondikers, including crampons of a type different from what they had seen before at the Scales. At the summit, the hikers observed a U.S.—Canada boundary marker placed on a rocky dome, which they had not seen the last time they crossed through the area.[98]

From these trips and journals, Robert Knox, a writer for the Anchorage Daily News, produced a number of articles that were published in the late 1950s. These feature stories as well as Pierre Berton's *Klondike* (1958) generated interest in the trail as a recreational hiking and camping destination which resulted in a growing lobby effort by hikers to preserve, maintain, and commemorate the trail.[99] By 1967, officials working for the State of Alaska forwarded "a series of maps with the trail location and historical site" information to the USGS cartographic division,information the Knoxes had been instrumental in gathering.[100] The Knoxes would make one more trip up the Chilkoot trail in 1970 with pack horses, but unfortunately this time without Richard White, as he died in a car accident in 1968.

Trail Development and Commemoration

The State of Alaska first showed sustained interest in the history of the Klondike Gold Rush in early 1961, in large part due to the trail's chief proponent, Charles W. Pfeiffer, director of the state's Youth and Adult Authority (YAA). As part of its prison rehabilitation, the YAA participated in projects that offered long-term recreational benefits. Pfeiffer felt that the Chilkoot Trail would be an excellent demonstration project for his division. With

Thomas Murton, his assistant, Pfeiffer contracted Michael Leach, Division of Lands in the Alaska State Department of Natural Resources (DNR) in Juneau. Leach, who was the division's one-person Branch of Forestry, Parks and Recreation in southeastern Alaska, soon became an enthusiastic advocate of a proposal in which the YAA would supply and supervise labor on the trail while the Division of Lands would provide technical oversight.[101]

The survey group – Thomas Murton and Richard Branton (YAA), and DNR representatives Michael Leach and Charles Mehlert, Chief of Parks and Recreation (Anchorage)—traveled to Dyea on May 15, 1961 to begin mapping out the proposed route. Guided by Emil Hanousek, a Dyea resident who was familiar with the trail corridor, the group hiked up the east side of the valley to the site of Canyon City, flagging as they went. The following day, they continued on to Sheep Camp, later returning to Dyea uncertain as to whether the trial they followed was the same as that used by the stampeders. Hanousek later told the survey group that "an old wagon road which began at Dyea and proceeded along the river on the west bank of the river to Canyon City was, in fact, the location of the original trail." [102]

Because they had not followed the route described by Hanousek, Leach had concerns that their route would not be as historically accurate as possible. From his comments, it seems clear that the group believed that there was a single historic "route" rather than the more complex combination of foot, horse, and wagon trails that had been in existence during the 1890s. Nevertheless the route Leach and his party pioneered that summer is, with minor exceptions, the same one used today – and reflects a combination of both commemorative and recreational efforts from the perspective of the State of Alaska.[103] Leach commented on trail conditions, echoing the Knox and White accounts of the trail, but with additional details regarding work projected for improving the route for recreational use:

The trail was found to be grown over or obliterated along the way. The relocation of the trail was made as best as possible. In areas where no indications of the old trail were found, the trail was picked up and followed back through the area where it had been obliterated to hook up with preceeding [sic] portion of the trail. The trail in many areas was in very poor shape, requiring slight relocations, widening, filling and construction of foot bridges, ladders and other improvements to make it reasonably safe...The trail near Sheep Camp and beyond it is almost completely lost due to brush that has overgrown the area and frequent land and snow slides that have repeatedly washed out the trail. In this area the trail will have to be relocated on the basis of research conducted to determine its original location.[104]

Leach's report concurs with the Knox and White journals to some degree on the alignment of the trail. Both followed the logging road to the abandoned camp and sawmill, located parts of the old trail up to Canyon City (although the Knoxes identified trail blazes that are not mentioned by Leach), and described the trail below Sheep Camp as almost completely lost because of the dense underbrush.

On the second day of Leach's survey, Hanousek informed the group that the old wagon road beginning in Dyea and proceeding along the river on the west bank of the river to Canyon City was the location of the original trail and that the portion that Leach, Murton, Branton, and Mehlert covered from the bridge crossing the Dyea River to Canyon City was not historically accurate. Leach recommended that the YAA inmates begin their work on the trail at Canyon City because the historic trail traces were more evident there. Work could begin on the lower trail alignment when it could be surveyed with more historical accuracy. However, in his May 23, 1961 trip report, Leach pointed out that some Skagway citizens may not want the trail on the west side of the river because a proposed road from Skagway to Carcross was to traverse the area and the location of a historic trail along the same route may interfere with the construction of this highway. He concluded that, "Although the entire route may not be authentic, the trail is now marked with flagging from the steel bridge, which crosses the Dyea River to Sheep Camp and work to improve the trail, if desired, could commence at any time."[105] In early June,

Pfeiffer provided an additional synopsis of the dilemma facing Leach's survey crew and the problem of relocating their surveyed trail to the historic route:

One of the greatest difficulties seems to be establishing the actual route of the original trail because it apparently crossed and re-crossed the river in several spots. In fact, the first five or six miles have almost been obliterated by a cat trail which has been knocked in for lumbering purposes and is a section several miles long just before Sheep camp [Canyon City?] and is obviously an undisturbed section of the original trail and is of utmost interest. This particular section, however, is even more difficult to get to and the average hiker probably would never go this far. The area just before you reach the pass is full of mammoth rock slides which apparently has obliterated sites of interest...The first year, the boys will make the first part of the trail accessible and drain some bog holes and lay some simple log bridges. They will probably also venture forth on the more difficult aspects of the trail in an effort to mark it out more plainly, but it does not appear that much work will be done on the upper part of the trail this year. One of their projects during the process of hiking the trail is to secure relics of interest to donate to the Skagway Museum which has been recently established... The original scouting party of four that went up on the trail several weeks ago found it exceedingly rough going and encountered acres of devil clubs, rock slides, and obliterated trail.[106]

On July 25, 1961, Leach and Murton's inspection of the YAA crew's work listed basic trail improvements consisting mostly of brushing of the trail, cutting forest debris such as deadfalls and windfalls, blocking the trail, and putting in crude log bridges that consisted sometimes of just one log with the topside flattened by axe. As a harbinger of conditions that would continue to plague trail crews to the present day, their reports also documented that many of the newly completed improvements, including a cable crossing, were washed away by heavy rainfall and high water on the Taiya River. They also noted that Canyon City was inaccessible because high waters had also washed away the fallen tree that served as a bridge across the sixty-foot wide stream. Leach recommended a more permanent solution: a suspension bridge at the historic site. Elsewhere, a dam constructed at the end of the Hosford logging road, which the State of Alaska adaptively reused as part of the trail route, had also washed out. As a result, water flowed freely down the road and made that part of the trail difficult to maneuver. Leach suggested that an earth-reinforced dam could be constructed to hold the waters in check and keep the trail in passable condition. At the end of the first work season on the trail, significant progress was evident:

There is now a trail from Dyea to a point about ½ mile south of Sheep Camp. This trail is passable and is greatly improved from the time that I first went over it in May. With further improvements, this could be a first class trail. However, I am still not sure what plans for next season will be. The operations for this year are over and any further work will have to be accomplished next season. The location of the trail from the point at which it terminates now to the summit of the pass will prove to be a major project. There are no indications of the old trail on the ground. Inquiries with local people at Skagway have met with negative results. Therefore, the location of this portion of the trail will have to be accomplished by research. I think we should carefully consider what part we are to take in the further development of this trail and make plans to accomplish only that which we have the means to. Some indication of the funds available for this project would, of course, be best guide to what we should do.[107]

In May, 1962, the YAA resumed its seasonal work on the trail, with specific plans to improve the alignment and bring it up to U.S. Forest Service specifications. This would require rerouting the trail in several sections to avoid excessive grades and areas dangerous to hikers. The plans also included adding rustic signs to locate the trail in areas where the trail was not apparent and trees were not available for blazing. Leach's ambition was ultimately to "embark on an interpretive sign program which will describe historic events and historic places along the trail." Specific plans were to further improve the trail beyond Canyon City.[108]

On June 15, a ¾" cable, approximately 500-feet long, was strung eight to ten feet above the maximum high water line across the Taiya River and anchored to two trees on both banks. The White Pass & Yukon Route railway constructed, donated, and installed a cable car to replace their

failed tramway in 1961. The cable car facilitated the transportation of equipment up the trail, avoiding the steep "Saintly Hill," the initial trailhead access adjacent to the Taiya River steel bridge crossing. Field Forester Larry Dutton noted that, "The cable crossing appears to be well constructed in a better location than the cable put in last year and should not wash out."[109]

To provide crossing for large streams, the crew built several bridges, placing "two large logs across the stream with plank or shake tread on top and a hand rail. Where there was danger of washing by high water, the logs were anchored to large trees on either bank with a length of cable." Dutton noted that "These bridges are well built and should last for several years.[110]

In order to avoid the unsightly area around the sawmill location, the crew relocated the trail around the mill about two miles upstream from the cable crossing. The Division of Highways contributed a bulldozer for one half day and the crew smoothed out the logging road past the mill site to about 3.5 miles above the cable crossing. They also used the bulldozer to build approximately 100 feet of new stream channel, rerouting the stream that was washing out the road, and creating the need for a log dam to check water flow along this section of trail.[111]

Along the next mile of trail, (in the vicinity of Finnegan's Point) at the end of the logging road, the crew relocated nearly the entire trail and constructed new tread with good alignment and excellent grade. The new route avoided the river as well as the steep and dangerous places on the remnant trail. Dutton reported that the brushing and clearing along this portion of trail thus far was adequate, but that high stumps, debris from construction and several large trees cut near the trail for bridge decking shakes should be removed. He also observed that additional work was still needed on the lower portion of the trail—mainly the relocation and/or the addition of trail corduroy for about twenty-five yards between the first two stream crossings below the mill site, to eliminate the problem of water running down the trail during high water periods on the river. (As with much of the lower trail, water run-off would continue to be a great concern throughout the ensuing decades.) Dutton also suggested some additional blazing on the relocated portions of the trail around the millsite, and improvement work on several small stream crossings.[112]

On June 17, Dutton, YAA Field Supervisor, Mackie, and a local resident, J. J. Braun, hiked to Canyon City to determine future plans for the trail to that point and to examine the site of the proposed suspension bridge across the Taiya River to historic Canyon City. Dutton advised the construction of several bridges across streams along the portion of the trail below Canyon City, and a relocation of the trail to avoid a steep area about one half mile below Canyon City.

In response to Leach's recommendation of a suspension bridge, Dutton reported that Mackie believed that he could build a log bridge across the river "that would be satisfactory for our purpose and which would be considerable [sic] cheaper than a suspension bridge" (Dutton to Leach, July 2, 1962). Dutton summarized that the first four miles of trail work between the cable crossing and Canyon City had been completed to a good standard except for a few minor items. The work crew had previously built a good camp at the mill site, and would relocate to the proposed permanent shelter site near Canyon City for the remaining two miles of trail work below the proposed bridge site. Dutton recommended that Leach should approve Mackie's proposal to build a log stringer-type bridge at Canyon City (Dutton to Leach, July 2, 1962). Expense seems to have been the determining factor in bridge design at the Canyon City townsite at this time. Leach's reluctance to accept a log stringer instead of a suspension bridge was countered by Plourde's brief note to him on July 20, 1962: "You will be happy to know that a bridge was constructed across the Dyea River to Canyon City at the cost of about $40 for cable. The USFS design [favored by Leach] was dropped as being to [sic] expensive to construct."[113]

On July 7, 1962, Leach returned to Dyea, where he conducted a progress tour of trail work. Included in the group were Henry Harmon, Dept. of Health

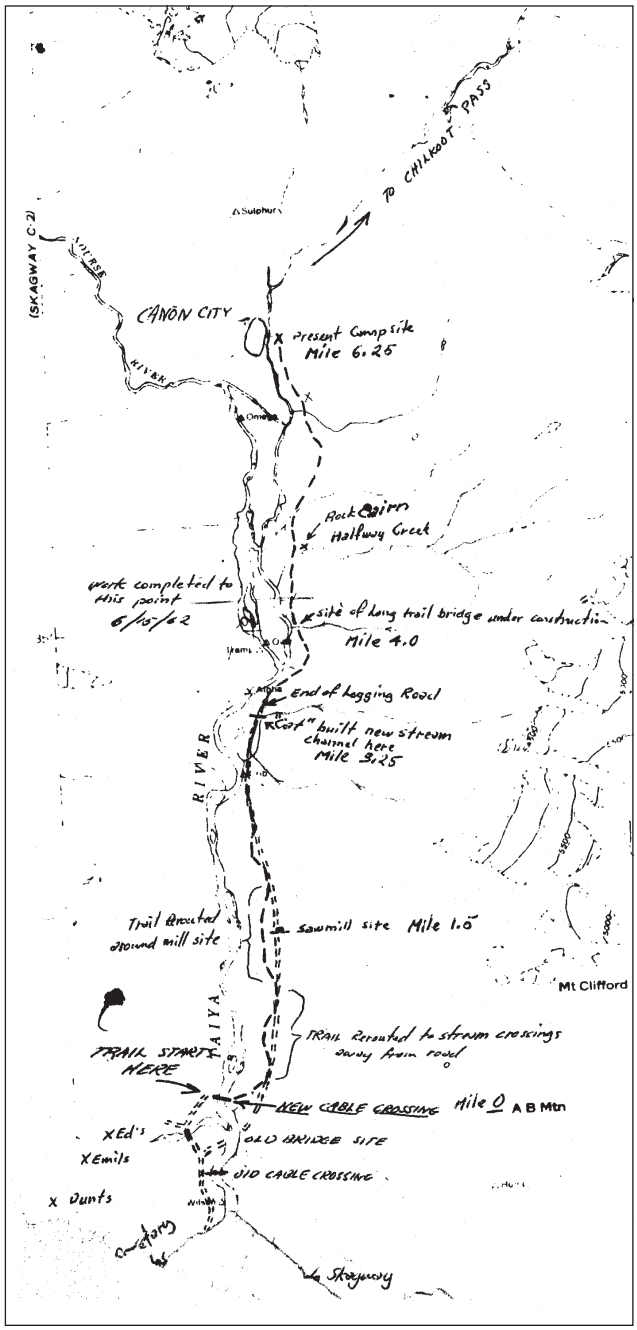


Robert & Wilma Knox Papers, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, Series 17, Subseries 17b, #1061B.

and Welfare, Charles Pfeiffer, and *Associated Press* reporter, Ward Sims. The group hiked to Canyon City and after a brief tour, camped overnight and returned to Skagway the next day. Other members of the party, Leach, Murton, Mackie, Dutton, and Jim Alexander (who served as a guide) continued up to Sheep Camp, reporting trail conditions:

Beyond Sheep Camp we ran into heavy brush and numerous rocks and snow slides which had wiped out practically all traces of the original trail. Beyond that and above timberline, we ran into numerous slides and large areas containing huge boulders. It is almost impossible to build trails on this type of terrain without a very intensive program of long duration. As we proceeded farther, it became apparent that trail building would be very difficult and almost impossible in certain places. On the basis of this, it is suggested that possibly the trail be improved to a point above Sheep Camp where the trail building begins to be difficult or almost impossible. At that point, we could erect a sign saying that the trail was not improved beyond that point and that travelers travel at their own risk. Beyond that point, we could mark the easiest route without trying to improve the trail.[114]

The group hiked up to the summit, observing the historical points along the way, such as the old tram, cable remnants, and building ruins at the historical sites; these were photographed and documented as to their significance. Leach reported that the last part of the trail immediately beneath the summit was the most difficult portion because of the extremely steep grade and dangerous footing on the talus and snow.[115] He also projected the next major project for the season: a log cabin/public camp at Canyon City that would serve as an overnight destination for hikers exploring Canyon City, as well as providing a "sort of headquarters for the YAA crew" during the next work season.[116]



Michael Leach Field Map, State of Alaska, Department of Natural Resources, "Chilkoot Trail Project, 1962," CT File #1, 1961-1966.

Leach's progress report for the 1962 work season ending on July 30th reported that the YAA crew had completed the sixteen-foot by twenty-foot shelter cabin of log construction (hemlock shake roof) near Canyon City. The building contained ten bunks fashioned from canvas, a table, a small Yukon stove, and a barrel stove. Designed as a shelter for hikers, the YAA also planned to use it as headquarters for their 1963 season trail projects. Other work accomplished during the 1962 work season included: relocation of approximately three miles of trail; brushing of trail where necessary up to Canyon City; construction of approximately one mile of new trail tread; construction of fifteen log-stringer crossings at wet places; construction of a log suspension bridge at Canyon City; and the installation of a cable car crossing the Taiya River by Dyea. [117]

Plans for the following year, according to Leach, included pushing the trail rehabilitation work to the Sheep Camp site, while using Canyon city as a base for operations. In preparation for the next season, the crew brushed a landing area for a helicopter which would be used to ferry supplies (Leach to Plourde, August 28, 1962).

Leach's hand-drawn map, "Chilkoot Trail Project, 1962," illustrated his seasonal report. It depicted the origin of the trail at the new cable crossing above Kinney bridge site; trail reroutes around mill site at 1.5; a new stream channel at 3.5; the mile 4.0 site of "long trail bridge under construction" (as of June 15, 1962); and the present campsite at mile 6.25, Canyon City. His map also included a reference to a two Map "Rock Cairn" at "Halfway Creek," just below the campsite.[118]

The State's work crews received an unexpected commendation from local Skagway resident, Barbara Kalen. Writing to Leach in 1962, Mrs. Kalen states that, "the new cabin, repair job on Hosford's old cabin, and the convenient little open-air camp area by the Canyon City bridge make it pleasant for anyone to use the trail."[119]
Prior to the 1963 field season, the rigorous work planned for the trail that upcoming season necessitated the use of helicopter supply for either Pleasant or Sheep Camp. At that time, Leach also wrote, "we have designed and had constructed all the signs necessary for the trail and the Dyea area. These signs are descriptive, interpretive as to the historical and geographical nature of the area," ones that could be constructed on the lower end of the trail while awaiting better conditions further up toward the pass.[120] Leach reaffirmed the season's projects in a letter to his Canadian counterpart, J.R. Lotz:



Wilma Knox in front of the State of Alaska cabin at Sheep Camp, 1970. Robert & Wilma Knox Papers, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, Series 17, Subseries 17b, #1068B.

To date we have approximately seven and a half miles of improved trail leading to 'Sheep Camp.' We have improved the trail to the extent of installing bridges where necessary, improving trail tread and rerouting for better grade. The improved portion of the trail takes one by such interesting historical points as "Finnegan's Point," "Canyon City," "Pleasant Camp" and "Sheep Camp"... The trail between "Sheep Camp" and the "Chilkoot Pass" is not yet improved or well marked.[121]

In Dutton's field inspection trip on June 24, 1963, he reported to Leach that the trail was fairly well brushed out from Canyon City to timberline above Sheep Camp, although he recommended some additional brushing out and removal of windfalls. The location of the trail was satisfactory for most of the distance cleared, but some rerouting would be necessary to address major stream crossings and to bypass a few steep places. Dutton reported that, "Other than falling logs across stream crossings, no improvements had been made in the trail above Canyon City." The major work of the 1963 season concentrated on building a shelter cabin at Sheep Camp. The shelter measured 18' by 22' and was roofed with corrugated aluminum. These materials were packed in along the trail. In addition to several windows, the south end (entryway) of the cabin had an attached porch covered by an extension of the roof, supported by two small cast iron cable drums, each about 12" by 18" and weighing about seventy-five pounds apiece. These drums, labeled "Bernes-Sheep Creek" were, in fact, artifacts from the goldrush tramway found across Sheep Creek (the Taiya), "near the ruins of an old cabin which evidently served as a saloon and eating establishment." Noting other artifacts, Leach reported:

A cache of white china dishes, of the type used in restaurants during the period of the gold rush, was found under the floor of this same cabin. A set of these dishes, service for six, which included dinner plates, salad plates, bowls, saucers, cups and relish dishes were packed out along with a kerosene lantern of possible antique value and were donated to the "Trail of '98" museum at Skagway. Also, the tent pole bearing the inscription "S.S. City of Seattle, Dyea, Alaska," which we found at Canyon City last year, has been placed in the museum. [122]

Not all artifacts were collected properly, as seen in Mehlert's confession after his initial trip in 1962: "There is a great temptation to get off the trail and hunt for souvenirs. I succumbed to this fever and came back with some horse's teeth I picked from an old skull and other bits of rusted impedimenta."[123]

Plans for the rest of the 1963 work season included completing the cabin at Sheep Camp, covering the roof on the cabin at Canyon City with aluminum, repairing trail tread, constructing some new trail, and building trail bridges between Canyon City and Sheep Camp.[124]

In October 1963, Lotz hiked the trail, and noted the improvements mentioned in the Dutton and Leach reports. He described the trail as clear and well marked, and then described details of the trail itself. Just north of the Canyon City Shelter, the trail forked with one branch going up the east bank of the canyon to Pleasant Camp. After Pleasant Camp, Leach reported that the trail climbed up the side of the canyon for about one mile, where the river had to be crossed on "logs thrown across the stream."[125] According to Lotz, the trail went slightly upward for over a mile to Sheep Camp at which point, he noted, "the trail leads through the brush, and then breaks out on the gravel bed of the river. It is possible to climb up this to just beyond the point where a waterfall comes down on the right. Then it is necessary to cut left along a cleared trail."[126] The trail then broke out into the open just near the avalanche of 1898, near two ravines. At that point, Lotz advised that hikers should keep to the streambed and follow the trail to the base of the Chilkoot where two alternative routes lay. He suggested the use of the right-hand trail (the"so-called Pettersen Trail used by dogs and packers during the gold rush") because the trail was less steep with better footing than the left-hand trail (the Golden Stairs) which was more dangerous in the summer because of loose footing.[127] Lotz's report, which was ostensibly made to spur the Canadian government to action on their side of the trail, was a detailed summary of "what work is needed to make the Chilkoot Trail passable on the Canadian side to enable hikers to get from Dyea to Bennett."[128]



Chilkoot Trail camp location and mileage sign near the steel bridge and trailhead, constructed sometime in the late 1960s. National Park Service, Klondike Gold Rush National Historical Park, Jensen & Ross Trail Survey, 1977; A1.



Canyon City campground signage, 1970. Robert & Wilma Knox Papers, Archives & Special Collections, Consortium Library, University of Alaska Anchorage, Series 17, Subseries 17b, #1062B.

Leach followed up in May 1964 with a letter to the State Commissioner, urging him to engage with the Canadians on this subject at their annual meeting.[129] The Canadian trail work began in 1967 with a ground survey.[130]

By 1964, the trail had been improved by the YAA for nine miles. Upgrades included better trail tread, installation of native material bridges and signs. Noteworthy also were the "two log cabin shelters, one at 'Canyon City' by the end of the old wagon road, and at 'Sheep Camp,'" each providing accommodations for eight to ten people."[131] (No construction reports for 1964 have been found at this time).

In 1965, Henry Hall, Recreation Crew Foreman, measured and marked distances on the Chilkoot

Trail using a U.S.F.S. cyclometer. Beginning at the Taiya River steel bridge, Hall marked the trail with 6" by 12" by ¼" black-stenciled white signs (each ½ mile apart) to a rock knoll at Scales. Hall decided not to place signs beyond the 16.0 Mile point, stating, "From there on up it is dealer's choice depending on weather, snow, rain, etc. so I did not think it wise to put up further signs since to do so would imply that to be the 'best route' which it might not be on any particular occasion." However, Hall did measure the trail along a median route to 16.6 miles where the pushing wheel of the cyclometer became untenable. Hall stated that, "The top of the pass from point of cessation was not more than .2 mile at very most. So a figure of 16 ¾ miles to top of pass will stand up to anybody's argument."[132] Although its actual construction date is unclear, it would appear that the log-framed mileage sign at the trailhead was installed not long after Hall's foot survey. The sign is the same style as the one at Canyon City as well, so it is assumed they were installed about the same time.

In 1966, Edward Hanousek, the Mayor of Skagway, urged Alaska Governor William A. Egan to approve the construction of a bridge across the river at the end of the two-mile long YAA reconstructed logging road around the millsite. Hanousek pointed out that a bridge at this location would provide access to the entire Dyea Valley, and suggested that the cost of $7,500 could be paid in land script. Hanousek described the area as follows:

On leaving the road at the Steel bridge, across Dyea River the Trail starts an almost perpendicular climb to get around half mile of river bluffs and then comes down as rapidly. From there on the trail follows the water level and is in good condition due to the work done by the Youth and Adult Authority. This past summer a logging road has been constructed on the left bank of the river which goes over two miles beyond the difficult portion of the Trail.[133]

Hanousek's suggested bridge access was not built,



Commemorative monument at Chilkoot Pass. S.L. Ferreira, National Park Service Alaska, Cultural Landscapes Program, 2005.



1968 DNR trail crew installing stenciled mile marker signs. Photo courtesy of Gene Rook, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library.



1968 DNR trail crew. Photo courtesy of Gene Rook, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library.



1968 trail crew workers utilizing the 'hand tram' across the Taiya river. Photo courtesy of Gene Rook, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library.



Image of crude bridge crossing, unknown trail worker. This site is the first major crossing on the trail when coming over Saintly Hill. The 'Stairway to Heaven' bridge is currently located near this site. 1968 Photo courtesy of Gene Rook, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library.



Another example of a cottonwood stringer bridge. Although not the same site, this bridge appears to be crossing the first major slough, where the first steel bridge is currently located. 1968. Photo courtesy of Gene Rook, National Park Service, Klondike Gold Rush National Historical Park, Historic Photograph Collection, Library.

however, leaving the trailhead at the location established by the blazed trail defined in the late 1940s along this section of Saintly Hill. Apparently, this trail to Sheep Camp (nearly 13 miles) was traveled by a local horse trail packing business, called Wes Nelson Outfitters.[134] Wes led the Knoxs' over the Chilkoot trail (to Sheep Camp)on their final trip up the valley in 1970.

At the end of the 1966 work season, Leach reported that "¾ mile of trail south of 'Sheep Camp' was improved and a new trail cut into the ruins of 'Sheep Camp' from our Sheep Camp Public Shelter." He also mentioned the plan to replace the bridge across the "Taiya" to "Canyon City" which had been washed out by high water.[135]

Leach wrote to a Canadian official in 1968 and stated that the International Boundary was well-marked at the summit by iron posts drilled into the rock. He went on to describe the U.S. trail marker system (cedar plaques with routed letters painted white) beginning at Mile 0 (steel bridge crossing the Taiya River in Dyea) with the last marker at Mile 16 located at the "Scales" below the summit calculated to be at Mile 16.8. At this time, there were a number of standards on the American side of the trail, such as ensuring that alignments were cleared to a width equal to a man's arm-span.[136]

In 1964, in recognition of the state centennial, discussion began on the design of a commemorative marker at the summit of the Chilkoot Pass recognizing the 1898 stampeders. Part of the State of Alaska's larger project of bronze historical markers, the Chilkoot Trail memorial consisted of a stone monument (built by masons from Juneau in July, 1968) which incorporated a bronze plaque. Also in 1968, DNR work crews (Lands and Parks Division) took over trail maintenance work from the YAA. Given that a fall, 1967 flood "washed out all bridges, and much of the trail" as well as damaging other improvements on the trail, the DNR faced a major project in getting the trail open the following summer."[137]

Shortly after the marker was dedicated, the first Chilkoot Trail hiker's guide, authored by Michael Leach and Henry Hall, was published. The guide included a brief trail history, a description of major historical resources, the two cabin shelters and other improvements, as well as notes about the area's weather and wildlife. *The Chilkoot Trail: A Guide to the Goldrush Trail of '98* provided the first comprehensive information on the trail written specifically for recreational hikers.[138]

Where the intention of the *Guide* was to orient the hiker to the trail corridor, it also provided important commemorative details about the relationship between the contemporary trail tread and the historic routes used during the gold rush, such as the identification of a potential historic trace at Finnegan's Point where the "trail dips to the water's edge and follows the Taiya closely along a segment still reflecting early travel" (Leach & Hall, 1968; 8). At Canyon City, the *Guide* noted the spur trail and "footbridge" to the townsite, the artifacts remaining at the site, as well as "traces of one of the wagon roads [that] bisect the site" (9). According to the *Guide,* another historic trace appears above Mile 8.15 where "the trail joins the old Summer trail which still bears ample evidence of use by thousands during the stampede" (11). During the winter months of those times, when the Taiya was frozen, this trail "provided the easiest route through the canyon to Camp Pleasant, where a horse bridge recrossed the river" (11). As the trail proceeds, the *Guide* notes evidence of further use: "occasional telegraph poles, some virtually intact," with miles of galvanized iron wire lying on the ground (11). In addition, "short stretches of old corduroy trail sections in varying degrees of deterioration" were evident, along with "some quite well-preserved abutments and portions of a bridge" (11). Further whetting the hiker's appetite for historic detail, the *Guide* noted that in 1966 an old section of the trail was discovered south of the State of Alaska Sheep Camp cabin, and that, "the trail has now been rerouted to cross in front of Sheep Camp Shelter, cross a small stream there and proceed northerly to join the old trail" (12). The *Guide* located Stone House at 15.0 and described the ruins of the tramway building and numerous artifact clusters at 16.0. Finally, the guide described the ascent to the pass via both the "Golden Stairs" and "Pettersen Trail."[139]

Leach's imprint on this first guide to the Chilkoot Trail as a commemorative landscape is unmistakable. From as early as 1963, Leach had a vision of the trail's landscape story which he communicated in a letter to a colleague:

At the beginning of the project, it was hard to visualize the magnitude of the job or the opportunity it offered for telling the unique story of the 1897 gold rush. I must admit that we were wholly inexperienced at such things when we began... Our first task was reestablishing the route of the original trail. This was done by researching old maps, contacting "Old Timers" and on the ground searching... We next concentrated on brushing out this route since it was badly overgrown with brush. Next we concentrated on improving the trail by installing bridges, culverts and improving the trail tread itself. Most recently we have tried to dress it up and identify historical sites with signs and provide public shelter. This we have done by constructing two sizeable comfortable log cabins, one at the site of 'Canyon City' and the other at 'Sheep Camp.' To date we have an improved trail timberline....Our next project is the actual story of the gold rush. This we intend to accomplish through the use of interpretive signs routed on plastic and erected at the appropriate places. I believe that in order to tell the complete story of the gold rush, we will need the assistance of the Dept. of the Interior, Canada and the City of Skagway... [I] hope that we can continue through correspondence to explore the ways of making the gold rush story a living reality again.[140]

Not withstanding the fact that his goal of "reestablishing the route of the original trail" remained somewhat elusive despite his assertion above, it is clear that Leach's original intention of the trail's "rediscovery" was commemorative in nature. To what extent Leach was able to capture the "Gold Rush story" as living reality remains debatable, as no documentation of his "interpretive signage" has been located as of this writing. With no archeological surveys or programs for preserving the historic sites through which the new Chilkoot Trail traversed, protecting the resources that Leach wanted to bring alive for the visitor remained a challenge. The State of Alaska, in a short period of time during the 1960s, had re-established the Chilkoot Trail corridor as a public heritage site, institutionalizing a single trail alignment that corresponded to the historic context, but was recreational in character. Although less visible than the new recreational trail, the underlay of both the Native trail and the gold rush routes remained as remnants of the earlier landscape history. In opening up the trail for public use, the State of Alaska had both "rediscovered" the heritage of the Chilkoot Trail, and created a new layer in the evolving cultural landscape. The legacy of both the historic and the contemporary trail corridor would eventually fall to the stewardship of the National Park Service.

National Park Service Acquisition and Management

After the trail's publicized completion in 1968, visitation of the Chilkoot Trail skyrocketed, with an estimated 1000 hikers traveling the route in 1972. The commemoration of the trail as an important heritage resource—and its popularity as a recreational trail— incited attention from the National Park Service, especially when plans for an international park collaboration with Canada came to the fore. NPS historian Charles Snell had previously documented the Chilkoot in 1961, laying the foundation for future work towards a National Historic Landmark status, as well as Edward Bearss, NPS historian, who had provided a comprehensive Historic Resource Study for a proposed national park in 1970. In 1973, the Trail was nominated as a historic district by the Alaska Division of Parks, and was approved on April 14, 1975 and placed on the National Register. During this time (1971-73), master plans were also underway for a proposal that would eventually create a National Park composed of the Skagway, White Pass, Dyea, and the Chilkoot Trail heritage sites. In June 1976, legislation creating the park was approved, and Klondike Gold Rush National Historical Park was officially created by President Gerald Ford. In 1978, only two years later, the Chilkoot Trail was designated a National Historic Landmark, and a commemorative plaque installed at the trailhead.[141] The NPS then resubmitted the NHL nomination, which included the Dyea unit, and more accurately reflected the features and boundary descriptions; this revised nomination was



Early interpretive signage on the Chilkoot Trail. These signs were once located at the end of the dirt road, near the base of 'Saintly Hill' on the Dyea side. National Park Service, Klondike Gold Rush National Historical Park, Jensen & Ross Trail Survey, 1977; A2.

approved November 4, 1992.[142]
During the first decade and a half after the "reopening" of the Chilkoot Trail to the public, the initial administrative efforts for commemorating its significance included historic documentation leading to National Register recognition, assessments of historical contexts and resources, and the initiation of archeological surveys that would continue to the present day. While critically important to the new park's mission, these efforts did not address the realities of the ongoing maintenance of a recreational site. Between 1969 and 1972, the only maintenance on the trail fell to a small State of Alaska park crew. With the development of a Memorandum of Agreement between the State of Alaska, the National Park Service, and the Bureau of Land Management (who owned most of the land until state selection) on August 11, 1972, the authority and responsibility for maintaining the sixteen mile trail corridor was placed under the NPS, who agreed to "undertake to provide management and protection and do what may be necessary to administer, protect, improve, and maintain the lands and associated resources" in the Chilkoot Trail corridor.[143]

During that same August (1972), NPS and Parks Canada staff held a meeting at Lindeman Lake in order to fashion guidelines for trail structures, signage, and mile markers. Agreeing to ban newly built permanent structures, the group stipulated that wall tents for camping be constructed at Canyon City, Sheep Camp, and Deep Lake; and that other tents for administration be located at Scales and Morrow Lake. Mile markers, sited every half mile, would consist of white-on-black signs. Stenciled orange triangles would mark rocks between Stone House and the pass, as well as orange snow markers further designating the trail to Morrow Lake. Lastly, a common design for small metal interpretive signage would be used for the entire trail. Two years later, many of these recommendations were in place: the NPS ranger station at Sheep Camp (a wall tent raised in 1973), half-mile markers from Dyea to the pass, and twenty-four interpretive signs placed throughout the length of the trail.[144]

Initially, one of the major issues for the NPS was resolution of the alignment with respect to its historic location. While both the summer and winter historic trace variants still existed, the NPS was more interested in siting the historic summer route in order to determine whether or not to relocate sections of the contemporary recreational trail. After assessing the loss of archeological fabric in the more accessible trail segments, the idea of relocating to the historic traces was, in effect, no longer a management objective. The NPS had concluded that increased traffic along historic traces currently not part of the recreational trail would only result in further degradation of their archeological resources. After a planning conference in 1980, the idea of relocating the contemporary trail to include previously excluded historic traces was shelved in favor of continuing to improve and maintain the existing State of Alaska alignment.[145] Locating the historic summer traces remained a priority for park archeologists, however, largely because of the reality that locating these traces would prove to be a difficult, if not impossible endeavor in many locations.

The State of Alaska trail guide by Leach and Hall remained the main source of hiker orientation for the trail, and was revised in 1974 to reflect the NPS presence. Changes to the trail alignment and structures appear to have been minimal during the period between 1974 and 1976, and were still being handled by the State of Alaska. New structures were built at Sheep Camp in 1975, including a tent frame

and supply cache. With the arrival of NPS trail crew staff in 1977, large-scale maintenance of the Chilkoot Trail as a recreational trail began.[146]

The Shields Inventory: 1978-1979

The first significant inventory of the Chilkoot Trail with respect to rehabilitation and maintenance of the recreational trail came in August, 1978. Mike Shields, NPS trail foreman from North Cascades National Park surveyed the trail with Ed Stondall, (Alaska NPS Regional Office) in order to assess the condition of the trail and its structures, as well as future maintenance and reconstruction priorities. The two traveled the length of the trail from Dyea to Lake Bennett so that the assessment "would not lack total-route continuity."[147] Shields' trip report provides significant information on the structures dating from the State of Alaska period of construction and maintenance, including documentary photographs of structures ranging from stepping logs, puncheons, and signage, to log bridges and cabins. Shields' report provided critical baseline information at a point of transition in the physical maintenance of the 1960s trail, and signaled the beginning of a new period in the trail's history. The specificity of Shields' inventory of pre-existing structures and his recommendations for the future of the Chilkoot Trail as a recreational alignment, make examination of his report critical to the understanding of the trail's landscape history.

In his "general assessment," Shields described the contemporary trail's "rough" approximation of the "historic summer trail." He further states that the trail is a "dual experience, being both historically informative and environmentally attractive; not only is it the 'Trail of '98,' but also a primitive route retaining the aura of solitude and remoteness more normally associated with large natural-area parks."[148] This "dual experience" perfectly characterized the complexity of the Chilkoot Trail's cultural landscape, a complexity that to this day influences debates over management priorities for both recreational use and resource protection.

Shields described the trail's "rough-routed" character stating that the trail appeared to be



Rough trail character above Pleasant Camp. National Park Service, Klondike Gold Rush National Historical Park, Jensen & Ross Trail Survey, 1977; B19.



6.5 mile bridge. National Park Service, Klondike Gold Rush National Historical Park, Jensen & Ross Trail Survey, 1977; A29.



The ascent out of the valley near Canyon City, where stone steps would be constructed in the 1980s. National Park Service, Klondike Gold Rush National Historical Park, Jensen & Ross Trail Survey, 1977; B8.

constructed "much as the old stampeders might have done," and pointed out similarities between historic and contemporary construction, and emphasized the need for more systematic trail maintenance given the level of recreational use. Specifically, he stated the need to address "... slope stability, runoff patterns and groundwater resources, or the trail's ability to withstand constant use over a number of years." Shields then continued:

With minimal visitation such routing and low standard of construction were not critical, but as visitation has increased the signs of environmental damage (slumps, shearing, bog formation, tread troughing, vegetation loss) are now manifest and growing. While the areas of greatest long-term concern (and most difficult correction) are in the wet tundra meadows on the Canadian side of the pass, the U.S. side will begin to show massive deterioration within the next two to four years. This deterioration can be halted and reversed primarily through a strong maintenance program if it is instituted no later than 1980; specific recommendations are given later in this report.[149]

The Jensen & Ross images illustrate the "rough-routed" character of which Shields speaks, due largely to minimal design considerations and ad hoc implementation, as well as deterioration, given the moist, wet climate of the Taiya River Valley.

According to Shields, the 16-mile trail under NPS management consisted of two sections: a "maintained trail" from the Dyea trailhead to mile marker 14.0, and a "maintainable route" (un-constructed) from 14.0 to the pass, where minimal trail construction had occurred and the route was largely known through signage cues. This description corresponds to the State of Alaska's earlier assessment that any trail segment beyond Sheep Camp would be, for all intents and purposes, subject to the orienteering skills of individual hikers. The distinction between these two segments of trail more or less persisted in the prioritization of maintenance activities throughout the next two and a half decades.

Shields' report set forth the maintenance requirements that the trail alignment would require. They are listed here in their order of priority:

- bridges over streams
- puncheon or turnpike over bogs
- trail tread on sideslope bedrock
- trail tread within the Taiya River floodplain camping areas
- the un-constructed route over the talus fields above mile 14.0.[150]

Shields surveyed the extant sixty-six bridges on the first fourteen miles of the trail, which dated from the State of Alaska trail work from 1961 through the early to mid 1970s, reporting:

Over half of these bridges are short (20 feet or less) and cross small creeks, backwaters and seasonal flood



6.5 mile bridge. National Park Service, Klondike Gold Rush National Historical Park, Shields Survey, 1978; 23.



Canyon City suspension bridge. National Park Service, Klondike Gold Rush National Historical Park, Jensen & Ross Trail Survey, 1977; B4.



11 mile 'bridge' crossing with ill-fated pier placed on unstable gravel. National Park Service, Klondike Gold Rush National Historical Park, Shields Survey, 1978; 49.

channels, or seepage bogs and swamps; five bridges cross large potentially hazardous streams. Bridge types are 2-stringer puncheon (20), longitudinal pole (36), modified Gadbury (1), suspension (1), footlog (3), and a miscellany of odd "haywire" designs (5). Materials



11 mile 'bridge' in flood conditions. National Park Service, Klondike Gold Rush National Historical Park, Jensen & Ross Trail Survey, 1977; B30.

used in bridge construction were cottonwood, Western hemlock, Sitka spruce and birch, with cottonwood predominating because at most sites it provided the most readily available logs of any size.[151]

The "rough" trails made by Alaska work crews—due no doubt to small budgets and expediency, as well as untrained labor—resembled trails constructed during the gold rush stampede and integrated well within the historic fabric, but were not up to contemporary recreational trail standards. This was particularly true in the case of bridge design. According to Shields, only one of the bridges he surveyed was built with sufficient stringer size and many of the bridges lacked sill plates for stability. In some cases, new bridges—hastily constructed—were built over collapsed bridges, a situation which blocked stream channels, creating even larger, localized flooding issues. Bridge decking was woefully inadequate; in many cases, it consisted of 2-3" birch poles that were too thin to last more than 5 or 6 years. Handrails, where they existed, were rotten, broken, or purely ornamental, offering no strength or stability. Native materials such as cottonwood and birch were inferior wood sources for bridges; hemlock and spruce, if treated properly with fungicides, could serve well as bridge material.[152]

Perhaps the most troublesome to Shields were the three longest bridges: the 2-stringer, 36' pole-deck bridge at 6.5 Mile, the Canyon City suspension bridge, and the "multi-span Burma-style bridge at



This 1960s era section of trail north of Canyon City has pole structures as well as corduroy. National Park Service, Klondike Gold Rush National Historical Park, Jensen & Ross Trail Survey, 1977; B25.

Mile 11.0" built in 1974. These three locations, as we will see, typified the challenges faced by the seasonal trail crews up to the present day.

The bridge at 6.5 mile was constructed over a highly active runoff stream, with its load-bearing sills set into an "unstable gravel alluvium." The suspension bridge was "poorly designed and grossly misconstructed; in part this misconstruction (more main-cable sag than necessary, undergird cables installed where they shouldn't be needed) will allow the bridge to stand for more years, but reconstruction should be undertaken as soon as possible." Floodwaters had nearly destroyed the 11.0 bridge in 1977.

Shields noted that the "pier installed in anticipation of a replacement structure rests on highly unstable gravel and should not be used." It was recommended that a suspension-style bridge modified to suit bank conditions replace the extant bridge at mile 6.5 and that redesigned suspension bridges be placed at the Canyon City and 11.0 sites.[153]

Shields' second priority was the replacement of older pole and puncheon bridges with new 2-stringer puncheon bridges. His design guidelines were very specific and included: peeled log stringers; 4-5' deck width (some with bull rail for "structural strength'); and a minimum 4" decking depth; minimum 6' sills "in all cases;" cribbing to stabilize banks; and piers located on stable rock bed. He also recommended annual maintenance for bridge decks, and most importantly, that "all stream channels be kept free of drift jams in the bridge vicinity." Significantly, two of Shield's recommendations responded directly to the bridges' impact on the historic fabric, including the use of "fords" rather than bridges in streambeds of less than 6" flow, and the stipulation that "in bridge construction every attempt be made in materials and design to retain the rustic atmosphere of the trail and its environs."[154] The sensitivity to the trail's ability to convey historic character, emphasized by Shields' recommendations that the trail retain its "rustic atmosphere," coincided with Mike Leach's vision of a trail that would recall its gold rush origins.

The 1978 survey noted various examples of existing old puncheon, corduroy, mudhole poles, and other adaptations to the often muddy and boggy trail sections. In place of the "poles laid in mudholes [which] were harder to negotiate than the mud they rested in," Shields recommended that the poles be replaced with log or rock turnpikes with "rubble-rock base fill." Shields felt that this solution was preferable as it allowed for drainage and reduced "the necessary amount of turnpike and its associated drain on native timber." Two particular areas were of concern. One of which, the "delta wash" at mile 6.0 covered a large area of the trail with a shallow flow of water, "fanning out among trees and brush, flooding over 130 feet of the trail." In this case, Shields recommended either rechanneling the original streambed or creating 135 feet of new puncheon trail. Due to the constant failure of the previous State of Alaska dams to control

flooding on the logging road, a puncheon turnpike was the preferred remedy.[155]

Other trail sections provided more of a maintenance challenge, particularly the "rocky sideslopes of the Taiya canyon,... between Canyon City and Sheep Camp." Shields suggested the use of "a skilled trail blaster" who could "level and contour this bedrock into a natural-appearance tread which would... drain well, and withstand constant use virtually maintenance-free". Promoting stabilization by the "careful blasting and laying of native rock" rather than performing expensive trail relocations was seen to be the most viable solution:

The presence of such rock in or near very steep trail segments would also allow for rock step construction, precluding the need for relocations and switchbacks to reduce grade to a maintainable 15%. Such extensive rock-work, coupled with essential turnpiking and drainage in deeper-soil segments, could avoid most of the maintenance problems normally associated with sideslope trails (upper slope undermining, downslope overloading, sheering and slumps, switchback shortcuts, gully erosion, etc.)[156]

The Taiya Canyon "Slide" was also an area that needed to be urgently addressed, as the original trail had sheared 3-4' within the year and was likely to completely fail during heavy rains or spring runoff if cribbing supports were not put in place. Another concern was the absence of backslope stabilization that would minimize slumps, shears, or other trail collapses due to vertical cutbanks. Other trail problems were addressed in the report as well. Since the majority of trail alignment between Dyea and Canyon City—and a short 2-mile section at Sheep Camp—was constructed within the floodplain or subject to tributary action, the tread in these areas was particularly subject to unfavorable hydrologic conditions, especially "eddy scouring and undermining of silt-base trail along streams, sloughs and backwaters." The use of cribbing, dip drains, tread outsloping, as well as root and rock remover, were proposed as remedies to trail denigration in these areas.[157]

At the time of the survey in 1978, the two campgrounds at Canyon City and Sheep Camp had already exceeded their carrying capacity. Shields



Example of collapsed cottonwood stringer bridge, c. 1980. National Park Service, Klondike Gold Rush National Historical Park.



Example of cottonwood stringer bridge, c. 1980. Note also the hand rail, typical of bridges from this era. National Park Service, Klondike Gold Rush National Historical Park.



Example of a pole bridge failing to perform its function. National Park Service, Klondike Gold Rush National Historical Park, Jensen & Ross Trail Survey, 1977; B18.

recommended expanding both campgrounds while exploring new areas between mile 3.0 and Sheep Camp. He did not suggest any specific sites, however. No campsites were proposed for the "unconstucted route" above 14.0 either, which Shields recommended should be "retained essentially as a marked crosscountry route, and designated as such, with only that minimum improvement necessary to stabilize it." Shields' one exception to this was a proposal to build a small emergency structure at Scales.[158]

Although Shields included a brief overview of "trail standards" with the Chilkoot Trail specifically in mind, his conclusion emphasized the real priority: establishing a permanent maintenance crew dedicated to cyclic construction and repair of the trail, stating that, "given the current and increasing volume of use and the dynamic nature of the terrain....Long-term competent maintenance is at least as critical to the trail (and the user) as is reconstruction. This crew would be led by a foremen experienced with wet, Pacific slope trails, and should have particular experience with log carpentry (bridges, puncheon, cribbing) and rockwork (blasting, shaping and laying rock)." Finally, the trail needed a comprehensive set of baseline data including: "accurate distances, structures inventories, rough inventories of native materials availability and proximity, general vegetative and soil types and groundwater conditions, trail grades and general sideslope gradients, etc."[159] The report ended with a warning: "The initiation of proper maintenance and reconstruction within the next two or three years will be critical to the trail's survival in anything like its present state and location."[160]

As a companion to the 1978 inventory and recommendations, a photographic inventory of trail structures and a detailed foot-by-foot survey of trail conditions and proposed improvements provided further evidence of the level of comprehensive analysis supplied to park management. Although not labeled by milepost location, the 1978 photographs depict a trail landscape of rough, ephemeral character utilizing native materials, with the exception



Rare photograph of 1980s era trail crew members, from left to right: Jerry Watson, Bill Sell, Roy Nelson, & John Warder. National Park Service, Klondike Gold Rush National Historical Park.

of interpretive and directional signage. Most striking are the images of the "pole bridges" and puncheon noted by Shields as inadequate to meet the safety requirements of the rising number of hikers. In some cases, the photographs show imminent or present bridge failure, as well as the inability of trail puncheon to alleviate bog-like tread conditions. In the case of log two-stringer bridges, the poor construction of decking and handrails is also evident. The measured survey of recommendations, like the photographic inventory, provided a detailed catalogue of improvements, noting their location along the existing alignment, their type, and description. Examples of improvements included the grading and relocation of trail tread, the construction of rock steps, switchbacks, footbridges, campground and pit toilet additions, as well as the removal and replacement of trail corduroy, puncheon, and water bars.[161]

The 1978 report provided the NPS with a comprehensive list of actions it would need to undertake in order to transform the Chilkoot Trail from a roughshod landscape into a recreational trail. Trail maintenance had shifted from the State of Alaska's largely ad-hoc, although well intentioned maintenance, to fulltime NPS management of the corridor. The NPS would significantly alter the physical appearance of the trail over the next two decades. Between 1980 and 1995, the approach to the Chilkoot Trail's physical fabric was influenced by rustic

design styles exemplified by the Civilian Conservation Corps throughout the 1930s. Its application to the trail corridor, given the abundance of historic resources threatened by an unforgiving natural environment, would provide an inordinate challenge.

NPS Rehabilitation of the Recreational Trail

In response to Shields' survey, the NPS established the pattern for a seasonal crew between 1979 and 1980 with the creation of a trail foreman and laborer positions. In 1979, the first equipment was purchased for trail maintenance, but its late arrival precluded its use during that season. Nevertheless, following Shields' lead, the crew, led by temporary foreman William Edwards, established several temporary campsites (Hosford Sawmill, Finnegan's Point and Pleasant Camp) and bridge crossings (south of Canyon City, 6.5 mile, and 11.0 mile) where structural failures due to washout had occurred.[162]

In 1980, trail foreman Jerry Watson was hired and he guided the seasonal crews in extensive landscape projects, ranging from the construction of suspension bridges and extensive drainage systems, to the creation of low-impact rock steps and stone stream crossing. This period witnessed not only the implementation of most of the 1978 rehabilitation suggestions, but also ushered in an era of heightened sensitivity to the trail landscape fabric. Much of the character of the modern recreational trail, such as the bridge styles, the use of local boulders and stones for bridge approaches, staircase and small stream crossings, was established during this era of trail development. Watson and his crew were also resposible for the siting and construction of the Trail crew camp on the hillside above Canyon City campground. The site on the hillside, approximately 400' above the valley floor and off of the main trail, provided several advantages to being below in the heavily forested valley; the hillside location afforded breezes and airflow which reduced bugs and humidity, it is off of the main trail tread, ensuring some degree of separation from the public, it is close to a good source of water, and it has spectacular views of the lower valley. In addition, the establishment of a permanent trail crew camp in 1980 was not only a functional decision, but symbolic of the seriousness with which the NPS viewed the ongoing maintenance of the recreational trail.

Despite the NHL designation and the acceptance of historic commemoration, the more systematic treatment of the historic landscape fabric that would emerge with the NPS's nationwide cultural programs in the mid-1990s was not yet a reality in 1980. The Chilkoot Trail was a management challenge in terms of integrating cultural resource protection and recreational use. In 1980, at the outset of large-scale rehabilitation of the trail, no formal landscape plan for the trail yet addressed its complex and often competing historic and recreational aspects. In this light, the approach adopted by trail foreman Watson and his crew over the next fifteen years could be described as a combination of NPS rustic and CCC inspired aesthetics. They utilized native materials in building structures, thus integrating them within the existing landscape. They modernized the trail by constructing high-profile permanent structures, such as suspension bridges, which stood out against the trail's dramatic natural setting, and at the same time suggested historic structures and themes, such as tramway engineering.

As documented in Shields' report, the importance of maintaining safe bridge crossings was paramoont. Many of the 66 bridges addressed in 1978 had a life-span of between one and five years, a sobering statistic in light of the number of bridge sites along the sixteen-mile trail to the pass. The lower half of the 1960 trail in the Taiya River floodplain, and the hydrologic conditions affecting longevity (intermittent and permanent tributaries, in particular) were not addressed in any substantial way before 1980.

Beginning with Watson's tenure in 1980, bridge replacement became a dominant activity during the annual trail crew season. While priorities shifted from year to year, the need to replace and maintain bridge crossings remained constant. A brief examination of major bridge construction on the trail between 1980 and 1992 reveals the range

and complexity of landscape work accomplished by the trail crew, as well as the implementation of an aesthetic that, while not specifically geared toward historic commemoration, responded to the cultural landscape in ways that were visually unobtrusive and complementary to the natural context.[163]

Between 1980 and 1981, the trail crew built three major bridges: "Log Round (aka 'Soggy Bottom' at 5.5 mile), "Stairway to Heaven" (.93 mile), and "Boomerang" (1.05 mile). Both the 5.5 and .93 mile bridges replaced earlier log "pole" bridges with more substantial log stringer construction. Beginning with these bridges, the crew set a precedent of harvesting on-site materials where available, generally either trees that were downfall or deemed hazardous. In addition, the construction of bridge approaches became an important element of the overall treatment of stream crossings, although in these two instances, the work required was minimal. In the case of the 1.05 bridge, the name "Boomerang" responded to the hydrology of the site which necessitated a design capable of withstanding intense erosion and scouring. The Boomerang Bridge was built of imported douglas fir and cedar materials, and required an engineered log jam to prevent bank erosion, a feature that insured the bridge's survival. To date, the bridge remains in good condition.

A review of the four major bridges at approximately 1.5, 6.5, Canyon City townsite, and 11.0 miles, constructed between 1982 and 1984, and subject to replacement beginning in 1990, illustrates the difficult and complex circumstances facing the maintenance crews on the Chilkoot Trail. As noted by Shields, the 6.5, Canyon City suspension and 11.0 bridge sites were in seriously degraded condition in 1978. The location of the 1.5 mile bridge was particularly problematic, subject to continual flooding and erosion. The locales of the other two bridges shared the conditions found at the 1.5 mile site. The severe impacts of glacial hydrology—flooding, sediment loading, as well as the sheer span and volume of the water flows at these sites, resulted in different approaches to bridge construction and replacement.
As with the Stairway to Heaven bridge at .93 mile, a bridge crossing at 1.5 mile (now known as "Steel Bridge #1") was subject to serious seasonal flooding, having endured two washouts in the 1980s. At that time, a temporary spruce log bridge replaced the destroyed structure. Construction of a replacement log bridge at the site in 1982 entailed the adaptive reuse of log stringers previously used in the restoration of the Bishop's House at Sitka National Historical Park, as well as the harvesting of sixteen additional trees adjacent to the bridge site for stringers, decking, piers, and sills. With two 20-foot high log piers in midstream to support the 96-foot bridge span, the bridge took sixteen weeks to build. A major flood in 1989 destroyed the bridge; in 1990, a prefabricated Core-ten steel bridge was built upstream from the previous site, requiring a trail reroute and extensive fill for a new western



Burma style bridge at mile 11.0, failure imminent, c. 1980. National Park Service, Klondike Gold Rush National Historical Park.

approach. The use of the Core-ten steel bridge was controvesial. The bridges were very practical for the flood-prone sites, but by most estimates detracted from the historic character of the trail. Another Steel Bridge was installed further up the trail (Mile 2.4) in 1999, perpetuating the ongoing dilemma of reconciling contemporary use, environmental conditions, and historic context.

The 6.5 mile bridge site (actually located at approximately MP 6.43) is situated on a major, glacially fed tributary of the Taiya River, where water cascades from several hanging valleys nearly 2,000' above the trailbed. In replacing the cottonwood log bridge from the 1970s, the crew relocated the bridge100 feet southeast on more stable banks, harvesting six western hemlocks for stringers, mid-stream piers, and sills. Because of the hydrologic conditions at the site, building sills and trail approaches were an important part of the bridge design. Despite its sound construction, the bridge was severely damaged just after its completion during a flood event in September 1982. A temporary bridge was built in spring of 1983. At this time the crew also harvested four Sitka Spruce trees from the flood debris to reuse in reconstructing a new bridge the following year. In 1984, the crew relocated the 6.5 bridge site 250' upstream of the 1982 location, and carefully harvested four additional Sitka spruce logs from an adjacent area. As with previous permanent bridge constructions, sills and trail approaches were built for stability. The bank was armored on both sides of the stream with boulders to divert stream flow and to stabilize the banks during peak water flows. A trail reroute of nearly 500' from the old alignment to the bridge's new southern approach utilized the drag lines of the harvested tree material. Trail obliteration and native revegetation efforts by the crew also further minimized any visual impacts to the landscape. This bridge failed in 2002, and a temporary crossing was put in place near the site of the original 6.5 mile bridge approximately 250 ft. downstream later that season. A new bridge was constructed in 2004 at a carefully selected location approximately 250 ft. upstream of the failed bridge. The location of the new bridge was selected primarily because the stream narrowed in this location and there were several large, existing boulders that could be utilized to increase the hight of the bridge, thus placing the stringers well above the highest known flood levels for this very active stream. The trail was reouted approximately 800 lineal feet on both sides of the river to accomodate the new bridge location.

Certainly the highest profile bridge type on the Chilkoot Trail were the suspension bridges, located at the entrance to the Canyon City townsite at mile 8.0 and across a major tributary of the Taiya at mile 11.0. Although a suspension-style bridge from the late 1960s existed at the Canyon City site, its design and construction were substandard and deemed hazardous by the 1978 trail report. The bridge was damaged in the July 1979 flood on the trail. The 11.0 mile 'bridge' was also deemed substandard, subject to closure during flood events. In the winter and spring of 1981-82, working drawings for two cable suspension bridges were completed for both sites. Structural materials were shipped to Skagway in April for helicopter transport to cleared landing zones at both bridge sites. The volume of material was impressive, including 35,000 pounds of cable, towers, and fasteners, and 37,828 pounds of Portland cement (as well as a 1,000 pound cement mixer). This weight figure was exclusive of construction supplies (lumber, tools campsite equipment, for instance).

The excavation and construction of bridge anchors and main support footings began at Canyon City in late May. Constructing the anchor pads and footings proved to be the first test of the crew's stamina, as a three-day rain storm and subsequent flooding required them to build a series of check dams to divert water from the concrete forms and rebar. Even with the dams, water damage to the footings (forms, aggregate, and rebar) on the western shore required the crew to rebuild them. The construction of the four suspension towers was an engineering feat in itself. As Watson explained:

The tower erection was one of the most difficult and dangerous jobs accomplished by the crew. The pressure treated (creosote) towers weighed in excess of 1000-lbs each and had to be set on the bearing bolts at a fifteen-

degree angle. In order to accomplish this, the towers had to be suspended from two different trees (located adjacent to the site) at the same time. This extremely complex operation required the services of all eight crewmembers to accomplish. Pat Moore and Clark Likes climbed two large cottonwoods located north and south of the footing, where they set a main bearing cable at a height of 30'. A rigging harness was then set on a sliding pulley and attached to the top of the tower. This was the main bearing line; an additional line and pulley was then set on the northern tree and attached to the bearing edge of the tower. The tower was then winched into position, suspended in total on the vertical, while at the same time winched on a 15-degree angle, this in order to set them on the bearing bolts and plate. This was an arduous operation as the tower was extremely hard to control on the vertical, it was thoroughly soaked in creosote, which made it very difficult to handle, and setting the tower on a 15-degree angle was a tenuous process. Complicating this procedure was the proximity of the riverbank to the footings. It took two days to set all four towers.[164]

In response to the daily challenges encountered at the Canyon City Bridge site, Watson and Roy Nelson, the lead men for the 11.0 mile bridge, modified the original design of the bridge as conditions dictated. For example, the crew reinforced the bridge decking by adding additional cable in a "zigzag pattern" to reduce lateral movement in windy conditions. Following the precedent set on other 80s era bridges, the bridge approaches, footings, and abutments were reinforced by stone, which as a native material, also served to minimize the visual impact of the hard concrete footing edges. Completed in fall of 1982, the Canyon City suspension bridge construction had lasted four months. Although severely damaged in the fall of 1994 by flood and requiring major repairs in 1995, the original suspension bridge remains in service to this day.

The construction of the suspension bridge at mile 11.0 during the same 1982 field season mirrored the work at Canyon City. Splitting the trail crew into two teams, Watson supervised the Canyon City bridge, and Roy Nelson directed the work on 11.0 mile. As with Canyon City, the materials for the 11.0 bridge arrived via helicopter in late May; however, work was limited to the concrete operations on the upper bridge for about eight weeks (late July), while both teams focused on the townsite bridge, testing out the construction process and modifying the bridge design as conditions dictated. The 11.0 mile bridge span, at 106 feet, was nearly 40 feet longer than the Canyon City bridge, and required larger anchor pads for the bigger suspension cables. In the process of pouring the concrete for the anchor pads, Nelson found that hauling aggregate was more difficult than at Canyon City, and devised a system utilizing the Olini winch to get the material upslope from the riverbed:

The bucket from the wheelbarrow was removed from the frame, three holes were drilled into the metal container, and wire cable with clamps were fastened to the container. The winch then pulled the bucket through the streambed, filling the container as it was pulled up the bank to the construction site. This was an extremely effective way to bring aggregate to the site, as it significantly reduced man-hours and possible injury from hauling the material up the steep grade to the construction site. [165]

The process of constructing the towers, stringing the cables, and building approaches to the bridge during the Canyon City bridge construction were largely replicated, at the 11.0 mile bridge site. Although located in a highly active stream corridor, the location of the 11.0 mile bridge on elevated banks (as opposed to the 1970s bridge assemblage, which was actually "in the stream, on grade with no sub-grade or bearing sills" haphazardly spanning the stream braids) had proven to be highly effective. As with the Canyon City townsite bridge, the 11.0 mile suspension bridge has never needed replacement.[166]

The trail crew built several additional basic bridge types in the subsequent years between 1983-1995. These included native log, imported fir stringers with cedar decking, and on the upper reaches of the trail above treeline, a combination of prefabricated glu-lam stringers, fir sills, and cedar decking. Earlier 1960s-70s era bridges made of native materials (predominantly cottonwood

and birch) were replaced with bridges constructed of Western hemlock, Sitka spruce, fir, cedar, and glu-lam to increase both the structural integrity and life-span. During this period, the trail crew built twenty-seven major bridges, with a number of them requiring replacement due to flooding and washout conditions.

During this time the trail crew consciously decided to emulate the NPS rustic style in bridge construction generally associated with park development during the CCC era. These attempts included: siting and adapting new bridge designs in response to both changing hydrologic patterns and visual impacts; the careful use of native materials for both primary structural and detail elements; the blending of structures into the landscape by minimizing the visual aspects of approaches, abutments, and retaining walls, and the obliteration of old trails with native re-vegetation. While this approach did not respond to the historical fabric of the Native and gold rush trails, it did apply modern standards to an increasingly traveled recreational trail in ways that reflected a sensitivity to the rustic character of the historic period of significance, 1880-1900.

The intense focus on bridge replacement between 1980 and 1995 was not the only concern for the trail crew. Major environmental events, such as the floods of 1981-83, 1989, 1991, and 1994, and the avalanche on the upper reach of the trail in 1990, posed constant threats to the built landscape of the recreational trail. In 1991, for example, the entire Canyon City campground was flooded, resulting in the deposition of a two-foot layer of sediment and rock debris south of the State of Alaska cabin. A major restoration project ensued including replacement of campsites, repairing the cabin, clearing and moving additional campsites slightly to the north on the eastern side of the trail, relocating both the north and south approach bridges, and construction of a new section of trail. In the process of this restoration, the crew spent over a week cutting a new stream channel for the tributary of the Taiya which had flooded the site, utilizing a check dam to divert the flow until a new bank was built to protect the cabin.[167]

After the 1990 avalanche which destroyed four bridges north of the State of Alaska cabin at Sheep Camp, the trail crew embarked upon a stream channel restoration project in order to rebuild the structures. The stream crossing at 13 mile, in particular, was of concern because it was a major outflow channel for the upper Taiya River basin. Beginning in July, the restoration project was a major effort for the trail crew:

The bridge approaches were badly undercut and needed to be replaced. The stream channel had to be cleared before we could begin construction of the bridge. The crew moved upstream from the bridge site and using 2 Olini winches, they cleared an outflow channel, providing an outlet for the spring run-off. It was also necessary to build a series of check dams, this in order to re-direct the water into a series of cleared channels. In order to repair the stream ecology in this region, the crew constructed over ten check dams, excavated two new stream channels, and redirected several of the streams, which had been completely occluded by the avalanche event... It took the crew four weeks to clear the debris from the trail corridor and stream channels, removing well over 300 downed trees from the stream channels. [168]

While major flood and avalanche events provided the most dramatic impacts to the trail corridor, ongoing maintenance problems on the lower end of the trail were largely related to water drainage over the trailbed on a seasonal basis. Intermittent ditches, log puncheons, plank crossings, and other small-scale attempts to remedy the boggy conditions on portions of the trail proved effective to some degree. However, in a section of trail approximately 3/4 of a mile long just south of Finnegan's Point, the trail required a more engineered solution. From 1984 to 1987, using only hand labor, the crew built a major drainage system to channel water flow back to the Taiya River through a series of ditches and check dams. In 1994, the first section, a 1000' long main ditch, was excavated 2' deep and 30" wide, following the eastern side of the trail. In addition, the crew began work on one of the three major outflow drains, a project that required major excavation as well. In the 1985 season, a 1760' long lateral drain was excavated and built, as well as the initial 730' of a second outflow drain that would



Finnegan's Point warming shelter. S.L. Ferreira, National Park Service Alaska, Cultural Landscapes Program, 2003.

eventually reach 1360' in length. In 1986, the final year of the project, the second outflow drain was excavated to its full length and a third outflow drain, located along the western side of the trail and including a series of nine cross-drains, was also completed. The completion of the Finnegan's Point drainage system eliminated nearly a half-mile of periodically inundated trail in which water depths had ranged from one to four feet. The system included 15 short crossings and eliminated the social spur trails that were created when hikers were forced to travel around the flooded areas through the adjacent sloughs and bogs.[169]

For the most part, the upgrading of the State of Alaska's 1960s trail to modern standards was completed by the mid-1990s. Throughout its rehabilitation, the 1960s trail alignment (augmented by newer structures such as bridges, rock staircases, log puncheons and stone steps) had survived largely intact. The only major exception was the cutting of trail reroutes necessitated by changing environmental conditions. The character of the 1960s trail, however, had been transformed from a rough and ephemeral construction to a deliberately recreational trail built to modern standards capable of carrying increasing numbers of hikers. Although the rustic NPS/CCC style adopted in the design of the corridor did not expressly correspond to the trail's historic fabric, it did provide a "naturalized" aesthetic that was sympathetic to its historical context.

One specific project that made a concerted effort to evoke the historic character of the gold rush landscape was the construction of "warming tents" for use as public shelters at Finnegan's Point, Pleasant Camp, and Sheep Camp in 1991-1993. These structures were built to modern standards, but were suggestive of the tent camps that dotted the trail during the gold rush. The decision to construct these tents was an outgrowth of an appropriations bill and the recommendation of the senior NPS historic architect, who based his opinion on a preliminary cultural landscape survey of the trail by park staff in 1989. This was the first survey to



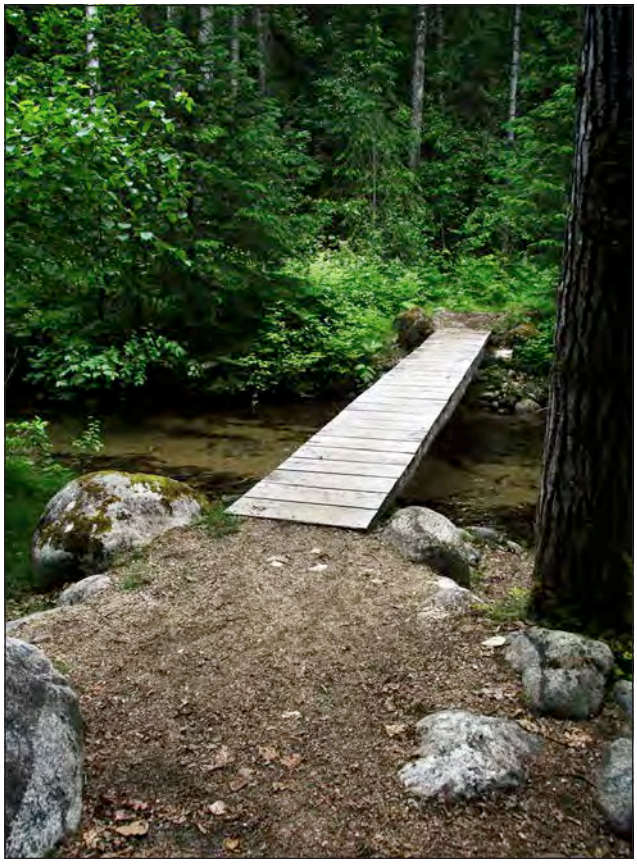
6.5 mile bridge under construction. S.L. Ferreira, National Park Service Alaska, Cultural Landscapes Program, 2003.



Rock Garden replacement bridge under construction. S.L. Ferreira, National Park Service Alaska, Cultural Landscapes Program, 2003.



South approach to 6.5 mile bridge, note massive boulder utilized as step. Jeremy Trazzo (L) and Chris True (R), seasonal trail crew workers. S.L. Ferreira, National Park Service Alaska, Cultural Landscapes Program, 2003.



Rock Garden replacement completed with beautifully constructed stone & gravel approaches. S.L. Ferreira, National Park Service Alaska, Cultural Landscapes Program, 2003.

view the relationship between historic resources and contemporary features from a landscape perspective. Another suggestion of this report was that the campgrounds at Finnegan's Point, Pleasant Camp, and Sheep Camp be relocated away from the known concentration of archeological resources, thus providing a small degree of separation between the recreational and historic occupations of the

sites, as well as allowing more space for necessary expansions.[170] This suggestion has yet to be fully realized.

Although different in function, a temporary "spike camp" for archeologists surveying the upper reach of the trail below the summit was also set up at the Scales site during summer of 2003, reflecting the ongoing survey of the trail's historic resources. The siting of this camp was controversial amongst park staff, largely because of safety and aesthetic concerns. It was subsequently removed the following year, even though its removal significantly slowed the archeological survey effort underway at the time.

Maintaining the Recreational Trail

Trail maintenance beginning in 1995 continued to address the seasonal clearing of the trail from winter downfalls, trailbed conditions, and the replacement of bridges due to flood events or structural failure. In addition the maintenance of campgrounds and ranger and trail crew facilities were also part of the annual maintenance regime. One major element incorporated into the trail in 1999-2000 was a wooden boardwalk, approximately 2000' in length, constructed between mile 2.7 and 2.9 to bridge a flooded area created by beaver dam construction. As the beaver pond continues to grow, the boardwalk will more than likely have to be extended over the pond, or the trail rerouted. For the most part, however, overall trail conditions have remained fairly consistent since the 1990s. Structural components such as retaining walls and trail stabilization measures (water bars, rock work, etc), and small-scale features such as stone steps, stream crossings and directional signage have required little attention.



Sheep Camp and warming shelter during 2002 flood event. S.L. Ferreira, National Park Service Alaska, Cultural Landscapes Program, 2002.



Ranger Seth marking the trail below Sheep Camp the morning after the Taiya crested. S.L. Ferreira, National Park Service Alaska, Cultural Landscapes Program, 2002.

In 1999, two prefabricated Core-Ten steel bridges replaced earlier wooden structures in the lower end of the trail. These modern metal constructions significantly impacted the rustic character of the trail. In recent years, park management has opted to utilize native log materials for in-kind replacement of preexisting water crossings. As an indicator of the longevity of these wooden constructions, the 6.5 log bridge built in 1984 withstood numerous flood events for two decades before its failure in 2002. At that time, a Core-Ten steel bridge replacement was discussed, but after a design study, it was decided to relocate the bridge site upstream to take advantage of a narrower span between banks and build a new log bridge (constructed in 2003). As part of the 2003 construction regime, the trail was rerouted in order to connect to the new bridge, and required new approaches.[171] The park's decision to utilize in-kind log construction at the 6.5 bridge site represented a conscious effort to continue to employ site-specific natural materials rather than prefabricated Core-Ten components in new bridge construction. Another 2003 in-kind log bridge replacement took place at the Rock Garden (6.8 mile), with a design similar to the 6.5 bridge. Since the bridge site remained constant, no trail reroute was necessary. Ongoing replacement of trail bridges has tended to focus on the materials required for bridge construction, and

less on the design of the overall bridge context—which includes construction of bridge approaches and associated features (bank armoring, stream channel restoration, among others.)

With respect to campground maintenance, major impact on the trail landscape occurred on August 12, 2002, with the flooding of Sheep Camp campground from heavy rains and snowpack melt. The Taiya River, cresting at 19 feet (the average was 15 feet), broke through an old riverbank scar and flooded the low lying area of the lower Sheep Camp campground. As the river course diverted to the trailbed, waters covered about 600 linear feet of the trail. Eighteen campsites were inundated, as well as two comfort stations. The warming tent was also displaced by high waters, and the north abutment of the trail bridge known as "Zigzag," was destabilized. In the summer of 2003, after completing planning efforts and compliance, the trail crew rerouted the trail, built tent platforms in new campsites and new comfort stations, stabilized the ZigZag bridge abutment, and relocated the warming tent to a higher elevation.

The decade after the major rehabilitation of the trail ended, from 1995-2004, increasing challenges arose for the park's trail crew and maintenance resources for the trail. As visitation numbers rose—especially with respect to day use on the lower end of the trail—and environmental events such as high water from snowmelt and heavy precipitation continued to threaten both the physical integrity of the trail and its cultural resources, the need for a comprehensive master plan for the Chilkoot Trail addressing the cultural landscape became undeniable. The cultural resource environment of the Trail, in particular, was and continues to be particularly fragile, given that these are non-renewable resources located within a dynamic natural setting. With new GIS and LIDAR mapping technologies in place, the development of management strategies for the Chilkoot Trail from a collaborative perspective including both trail maintenance and resource protection, can now be accomplished using a common data set illustrating the multiple and interwoven layers of this complex cultural landscape.

The Commemorative Landscape & Historic Preservation on the Chilkoot Trail

The creation of the recreational trail beginning in 1961 and largely rehabilitated to modern standards by 1995 provided for the continuity of use related to both the Native and gold rush trail periods. Although only sections of the historic summer route were reused by the recreational trail (and none of the winter route up the frozen Taiya River), the persistence of placenames (Finnegan's Point, Canyon City, Sheep Camp, Stone House, Scales, Gold Stairs) along the trail and the location of contemporary campgrounds in the general vicinity of traditional stopping places point to the legacy of a cultural landscape dating to at least the point of Euro-American contact in the 1880s. While contemporary land use falls largely within the category of informal recreation instead of commercial enterprise, the cultural landscape of the Chilkoot Trail still commemorates the historic gold rush period, memorialized by the plaque marking the trailhead and the stone monument at the end of NPS-managed trail at the summit.

The difficulty in assessing this commemorative aspect of the cultural landscape, however, lies in the continuing dichotomy between the modern construction of a recreational trail with all its associated features, and the need to manage the rich historic resource environment. Such hidden historic traces of the earlier gold rush period are found largely in the form of archeological remains, such as the Canyon City townsite. The following discussion focuses on NPS efforts to document and preserve these historic resources related to the trail corridor's period of significance, the Klondike Gold Rush.

At the time of the State of Alaska's publication of the 1968 trail guide pointing to historic resources in the landscape along the trail alignment, the only physical modification documented at that time commemorating the landscape was the bronze plaque embedded in the stone monument at the pass. Based on the surviving correspondence and photographs from the 1961-68 period of trail construction, it appears that some interpretive signs were built along the trail, but their content

and design are unknown. Since the State of Alaska's objective was to build a recreational trail echoing the Klondike Gold Rush history of the landscape, there was a conscious effort to understand the historic alignment as well as interpret the story of the trail. However, no archeological or historical documentation studies were undertaken as part of this effort, and few, if any, surviving photographs from this initial period show the condition of the historic landscape fabric.[172]

With the shift to NPS management of the trail and the need for an established maintenance program as a result of the Shields report, the issue of proposed impacts on known historic resources was of great concern. After a review and concurrence on the 1978 Shields recommendations by the NPS regional office and the State Historic Preservation Office, a preliminary archeological assessment of the proposed maintenance actions was conducted (Carley, 1981), and the work was allowed to proceed.[173]

The dialogue between the protection of the trail's historic resources in order to commemorate the Klondike Gold Rush and the operational needs to provide for a recreational trail would characterize the NPS management of the trail corridor throughout the next two decades. The major connection between the recreational and historic fabric of the trail environment was the compliance process by which maintenance actions were viewed for their impacts on known historic resources, a function of the National Historic Preservation Act's protection for properties on the National Register of Historic Places. In actuality, the compliance process at the park has dominated the park's historic preservation treatment approach, one in which the physical fabric of the trail's cultural landscape was evaluated in the light of proposed maintenance projects. That is, on an ad hoc basis as projects were proposed, as opposed to a mandate of a broader cultural resource preservation program.

With the approval of the Chilkoot Trail's status as a National Historic Landmark in 1978, two years after the park's establishment, the mandate for protecting the "contributing resources" that had been documented as part of this process was clear. Until recent years, however, the conceptual framework for the National Register remained fairly resistant to the idea of cultural landscapes, preferring instead to document in the categories of sites, objects, buildings, and districts. As a result, the district listing for the Chilkoot Trail, while it afforded a critical level of recognition and protection (mostly through the compliance process of assessing impacts), was more conceptual in scope and scale. It did not begin to approach the level of complexity that was necessitated by the trail's cultural landscape – essentially a sixteen-mile long archeological corridor set in a dynamic natural environment. The idea of "historic preservation" of the Chilkoot Trail has been a mission of the park's management plan since 1976 and has consisted of primarily three elements: archeological survey, artifact cataloging and monitoring, and interpretation.

Responding to the need to survey the extent of resources extant on the trail—and perhaps partly in response to the ongoing interest in relocating sections of the 1960s trail alignment with the historic summer route—archeological surveys began on the trail in 1979 and continue to the present time. Proceeding in segments from the crossing at the Kinney Bridge to the pass, archeologists surveyed resources ranging from small artifact clusters to large-scale sites, each year revealing more about the character of the historic trail and the extent of its occupation (settlement/camp sites) and use.

Perhaps the most unsettling of discoveries throughout the two decades of survey have been the degradation and loss of artifacts due to theft and intense environmental activity, such as river meander and seasonal flooding. At Canyon City and Sheep Camp in particular, salient features of the trail's cultural landscape have been affected by river erosion and vegetative cover, factors which are, for the most part, beyond the scope of a historic preservation strategy. With the collapse of the CRT tension station in the Long Hill area in 1996, the last standing historic structure within the trail corridor—a visual landmark on the upper

end of the trail—was lost, an inevitable result of natural weathering.

Similarly, artifact degradation and loss within the landscape due to theft has also been problematic. Documentation and monitoring of artifacts, as well as the removal of selected artifacts to park headquarters in Skagway for conservation, began in 1982. In 1997, a conservation project focused on the stabilization of the boiler at the Canyon City townsite, a major artifact within the historic landscape.[174]

The role of interpreting and defining the commemorative landscape of the Chilkoot Trail, while dependent on knowledge of the extent of historic resources, is visible in interpretive signage, placed at critical junctures along the recreational trail, as well as in the historical plaques at the trailhead and summit. New proposals for a visitor contact station in Dyea and the park's GMP proposals for three "open air museums" along the trail have the potential to add another interpretive layer to the cultural landscape of the trail, particularly in the incorporation of the most recent archeological dating and updated mapping.

Conclusion

The evolving cultural landscape of the Chilkoot Trail corridor as seen in this brief historical overview is one in which the Klondike Gold Rush, though ephemeral in its two-year boom, represented the largest concentration of occupation, use, and level of impact on the Trail. And while the commemoration of the Trail's significance was the primary motivation for the creation of the State of Alaska recreational trail and part of the overall establishment of the national park, the historic route continues to remain somewhat enigmatic, with significant portions either hidden by a century of vegetative growth or eroded as a result of the dynamic hydrology of the Taiya River and its extensive meander throughout the floodplain. The tensions between nature and culture, the inevitable weathering of the landscape juxtaposed against the need to steward historic resources, will continue to characterize the Chilkoot Trail.

Despite some loss of the physical fabric of the historic landscape, new information emerging from archeological surveys and cultural documents such as the Ethnographic Overview and Assessment continue to add depth to the stratigraphy of the trail as a cultural landscape, one that may result in new periods of interpretation of the Chilkoot Trail's historical significance.

The major challenge faced by the Park is that of reconciling the various layers and functions of the trail at a "landscape scale" Particularly salient here is the connection between ongoing maintenance and rehabilitation of the trail on a seasonal basis and long-term goals for historic preservation within a dynamic environmental setting. As the Park continues to replace, alter, and add new features on the trail, it perpetuates the process of layering the cultural landscape. Interpreting changes in the landscape from the Tlingit trade trail to the recreational route traveled today provides us with a powerful story, one that continues to unfold to contemporary visitors. The Chilkoot Trail is both artifact and process, an evolving phenomenon with deep ties to both the historic past and our future legacy. In the end our ability to broadly interpret the landscape on multiple levels will shape and guide the stewardship opportunities for the trail and its resources, and ultimately result in a more inclusive and comprehensive experience for the public.

Endnotes

[1]Thomas F. Thornton et. al. *Klondike Gold Rush National Historic Park Ethnographic Overview and Assessment,* Skagway Alaska: U.S. Department of the Interior, National Park Service, 2004: 45
[2]Khwáan, derived from the word "to dwell," marked Tlingit individuals as inhabitants of a certain geographic region and indicated their total control of that area's land and waters surrounding their winter/permanent villages (during other seasons inhabitants dispersed into seasonal subsistence camps) Thornton, 46.
[3]Goldschmidt and Haas, (Thornton, ed.) 1998: 101
[4]Goldschmidt and Haas, 1998, (Thornton, ed.), 108-109
[5]Angela Sidney interview, in Julie Cruikshank, *Life Lived Like a Story: Life Stories of Three Yukon Native Elders* (Lincoln: University of Nebraska Press, 1990) pg. 150
[6]Thornton, 2004. pp. 65-68
[7]One George Holt is alleged to be the first white man to pass over the Chilkoot Pass, and return with traces of gold from the upper Yukon basin. Much confusion exists as to the exact date and details of his trip (or trips as some sources indicate), but his reputation as the original discover of gold in the region seems justified. DeArmond and Cole, 2006, pp. 38-47; Edwin C. Bearss, *Proposed Klondike Gold Rush National Historic Park: Historic Resource Study*, (Washington: U.S. Office of History and Architecture, 1970), pg. 4; Lester A. Beardslee, "Report of Captain Lester A. Beardslee, U.S. Navy, Relative to Affairs in Alaska and the Operations of the U.S.S. Jamestown, under his command while in the waters of that Territory," (Executive doc, no. 71, 1st Session, 47th Congress, Washington, 1882) pp. 59-60
[8]Thornton, 2004: 120
[9]Aurel and Arthur Krause, *To the Chukchi Peninsula and to the Tlingit Indians 1881/1882*, trans. by Margot McCaffrey, 1993. Arthur was the younger brother of Aurel Krause, an early ethnographer of the Tlingits of Southeast Alaska. Professors from Berlin, the Krauses explored Alaska and the Pacific Northwest for the Bremen Geographical Society, from June of 1881 to September of 1882. Due to the liberal use of Krauses' wording in this section, the page citations for Krause & Krause will appear in the text in parentheses, instead of here in the endnotes.
[10]A diagram in Spude's work illustrate several methods of moving up a river in a canoe or small boat. Spude, 1980: 61.
[11]The *Katlakuchra* is Krause's German transliteration of the native name for the Nourse River, the *Ssidrajik* the upper Taiya River, pg. 206.
[12] See Arthur Krauses' map (pg. 27) for locations of the various camps described here. His description of the glaciers near Camp V seems to be referring to the two-pronged Sheep Camp Glacier, pieces of which would periodically break off and roll down the valley, creating the 'repeated roar' Krause speaks of. This roar would be recounted with consternation by many travellers from the gold rush era, as well as a few from the modern era as well. 1980s era trail boss Jerry Watson reports that occassionally during the early 80s, the glacier's 'roar' could still be heard, although only on rare occassions. Hereafter in this document, note that "Camp Pleasant" refers to the historic stopping point at the head of the Taiya River canyon, and that in current usage, "Pleasant Camp" refers to the Pleasant Camp camground located at Mile 10.65 of the contemporary recreational trail.
[13]Memorandum from Nelson A. Miles to Frederick Schwatka, April 7, 1883, reprinted in Frederick Schwatka, *Report of a Military Reconnaissance in Alaska Made in 1883* (1885) pg. 119. Subsequent references to Schwatka appear in the text.
[14]The Schwatka expedition's first camp was at Pyramid Harbor at the head of Lynn Canal, this is why his camp sequence begins with camp #2 in the Dyea area, as marked on his map.
[15]Schwatka also named the Nourse Valley and Saussure glacier. Bearss, 1970: 16
[16]Schwatka, 1885: 3, 13, 14
[17]Bernard Moore, *Skagway in Days Primeval* (New York: Vantage Press, 1968), pg. 44, Further references in text by page number.

[18]William Ogilvie, "Extracts from the Report of an Exploration Made in 1896-97" in *The Yukon Territory*, intro. F. Mortimer Trimmer (London: Downey & Co., Limited, 1898). The quotation is from William Ogilvie, *The Official Klondike Guide: Canada's Gold Field, The Yukon District*. (Toronto: The Hunter, Rose Co., Limited, 1898) pp. 115-116
[19]George Dawson, "The Narrative of an Exploration Made in 1887 in the Yukon District," in *The Yukon Territory*, pg. 373
[20]Ogilvie, 1898: 115-116
[21]Streveler, G. "Behavior of the Nourse River System and Its Influence on the Taiya Valley: Summary of a Reconnaissance, 1995". pg. 4; See also S.L. Ferreira's Masters thesis on the Taiya River Valley in which the author explores this hypothesis using historical narratives and photographic comparisons. pp. 37-42.
[22]Thornton, 2004: 129-35
[23]Ogilvie, 1898: 116-117. See also Bearss, 1970: 58. According to Bearss, Sam Heron was responsible for improving the trail to Sheep Camp. Norris also attributes the Kinney bridge to Heron in Norris, Frank B. and Carol Taylor. 1986. *Historic Structures and Sites: Dyea and the Chilkoot Trail*. Manuscript, National Park Service, pg. 154.
[24]Alaska Boundary Tribunal, pg. 394; Proceedings of the Alaskan Boundary Tribunal (1902-03). S Doc. 162, 58th Congress, 2nd Session, Volume 1, part 2: Appendix to the Case of the United States. In Senate Documents, vol 15: 393-395. (Washington, D.C.: 1904). Lunáat would later die in a quarrel over packing rights with a group of Tlingit from Sitka, Tlingit who were hired by John Healy to pack for his customers, in direct violation of the agreement made between Beardsley and the Chilkoot. Healy's role in the death of Lunáat is often overlooked or downplayed, and would be an interesting piece of re-visionist history. For an account of this battle from a white pioneer's perspective, see Moore, 1997, pp. 105-112.
[25]Schwatka refers to Krause (12-15), Dawson, in *Report of an Exploration,*...178B, 180-181B.
[26]Knox Collection 9: 6: 11; *Alaska Mining Record,* March 4, 1895; *Alaska Searchlight,* 14 Dec. 1895: 9; J. H. E. Secretan, *To Klondyke and back: A journey Down the Yukon*, 1898, pp. 40-50
[27]Ibid., Tappan Adney, *The Klondike Stampede of 1897-98* (New York: Harper and Brothers, 1900), 91-92
[28]Knox collection, UAA, 9: 6: 14; Black, M.L. *My Ninety Years*, 1976
[29]Adney, 1900: 96-97
[30]*Seattle Post-Intelligencer, "*Map of the Dyea and Skagway Trails" 1897
[31] Norris & Taylor,1986: 154-156. By 1906, as reported by the Leland Boundary expedition, the bridge had washed away.
[32]Adney, 1900: 96; Knox Collection, 9: 6: 16; *The Dyea Trail,* 9 April 1898 (head of navigation; toll road), and Pierre Berton, *The Klondike Fever: The Life and Death of the Last Great Gold Rush,* (New York, 1958), 247 ("a huddle of tents..."). Norris & Taylor, HSR, 324. Knox Collection 9: 5; 11: Secretan C. E , 40-50; and John W. Leonard, *The Gold Fields of the Klondike Fortune Seekers Guide to the Yukon Regions of Alaska and British America* (London: T. Fisher Unwin, 1897), 119
[33]Knox collection, 9: 6: 11: Julius M. Price FRGS, *From Euston to Klondike* (London, Samson Low, Marston, and Company, 1898) pg. 81
[34]Knox Collection, 9: 6: 16; *The Dyea Trail,* 9 April 1898
[35]Norris & Taylor, 1986: 181
[36]Norris & Taylor, 1986: 325-6
[37]Norris & Taylor, 1986: 201
[38]Norris & Taylor, 1986: 201-202
[39]Norris & Taylor, 1986: 205; Knox Collection 9: 6: 11: R. C. Kirk, *Twelve Months in Klondike* (London: William Heinemann, 1899), pg. 48
[40]Norris & Taylor, 1986: 208
[41]Knox Collection 9: 6: 16; *The Dyea Trail,* 9 April 1898
[42]Knox Collection: 6: 14

[43]Knox Collection 9: 6: 16; Berton, 1958: 248
[44]Norris & Taylor, 1986: 209-210; Knox Collection 9: 6: 16: Ethel Anderson Becker, *Klondike '98 Hegg's Album of the 1898 Gold Rush* (Portland Binfords and Mort, 1949), pg. 19; New York Times, Oct. 11, 1897
[45]Knox Collection 9: 6: 1; Adney, 1900: 110, 113
[46]Knox Collection 9: 6: 11; R. C. Kirk, *Twelve Months in Klondike*, 52-55
[47]Norris & Taylor, 1986: 242-243
[48]Norris & Taylor, 1986: 326, 327
[49]Knox Collection 9: 6: 16; *TheDyea Trail,* 9 April 1898
[50]Knox Collection 9: 6: 11; F. Brewster Fay letter from Sheep Camp, 27 March 1897
[51]Norris & Taylor, 1986: 276
[52]Norris & Taylor, 1986: 327-28
[53]Knox Collection, 9: 6: 11: Price, J.M. 1898: 84-85
[54]Knox Collection, 9: 6: 11; *Alaska Searchlight,* 10 July 1897
[55]Knox Collection, 9: 6: 11; *Alaska Searchlight,* 10 July 1897
[56] Norris, Frank B. "The Chilkoot Trail Tramways", Karl Gurcke, editor. Study Tour of the Yukon and Alaska. Society for Industrial Archeology, Ottawa, ON. 1990, pg. 1; Peter H. Peterson is the man for whom the Peterson trail or Peterson route is named. The name is frequently misspelled as "Petterson," in various accounts up through the late 1960s
[57]Knox Collection, 9: 6: 11; Julius M. Price FRGS, 82
[58] Norris, 1990: 2
[59]Ibid. 2-3
[60]Ibid. 3-5
[61]Ibid. 6; Spude, 1980: 198-199
[62]Ibid. 6-8; Spude, 1980: 198-199
[63]Ibid. 8; Spude, 199
[64]Ibid. 8; Spude, 1980:199
[65]Griffin, Eve. "CT252 Feature Record", 2001: 2
[66]Norris, 1990: 10-12
[67]Spude, 1980: 201-203
[68]Norris, 1990: 7; Spude, 1980: 203
[69]Knox Collection, 9: 6: 13, *Alaska Mining Record,* 6 September, 1899
[70]Knox Collection, 9: 6: 13, *Alaska Mining Record,* 6 September, 1899
[71]Knox Collection, 9; 6; 16, *Daily Alaskan,* 14, April, 1900
[72]Knox Collection, 9:6:13; *Alaska Mining Record,* 6 September, 1899
[73]David Neufeld and Frank Norris, *Chilkoot Trail: Heritage Route to the Klondike* (Whitehorse Yukon Territory, Canada: Lost Moose Press, 1996), pg. 147; O.M. Leland, *Report of Work done in 1906 on the Alaska Boundary Survey,* March 26, 1907, in Energy, Mines, and Resources (Canada), files of International Boundary Commission.
[74]Norris, *Legacy of the Gold Rush: An Administartive History of Klondike Gold Rush Historical Park*, Anchorage, AK: National Park Service, 1996), pg. 35
[75]Ibid. 35
[76]Ibid. 35
[77]Ibid. 35
[78]Ibid. 37; See also Allen, Phillip, *One Came Late. A Pictorial Travelogue of the Gold Rush Trails of '98 as relived by the Author from April 23, 1947 covering 6,000 miles in 6 months on a dime.* (Edmonton, AB: Quality Color Press, Inc. 1992)
[79]Norris & Taylor, 1986: 164-167
[80]Knox Collection, 9: 6: 2; Wilma Knox, p. 1

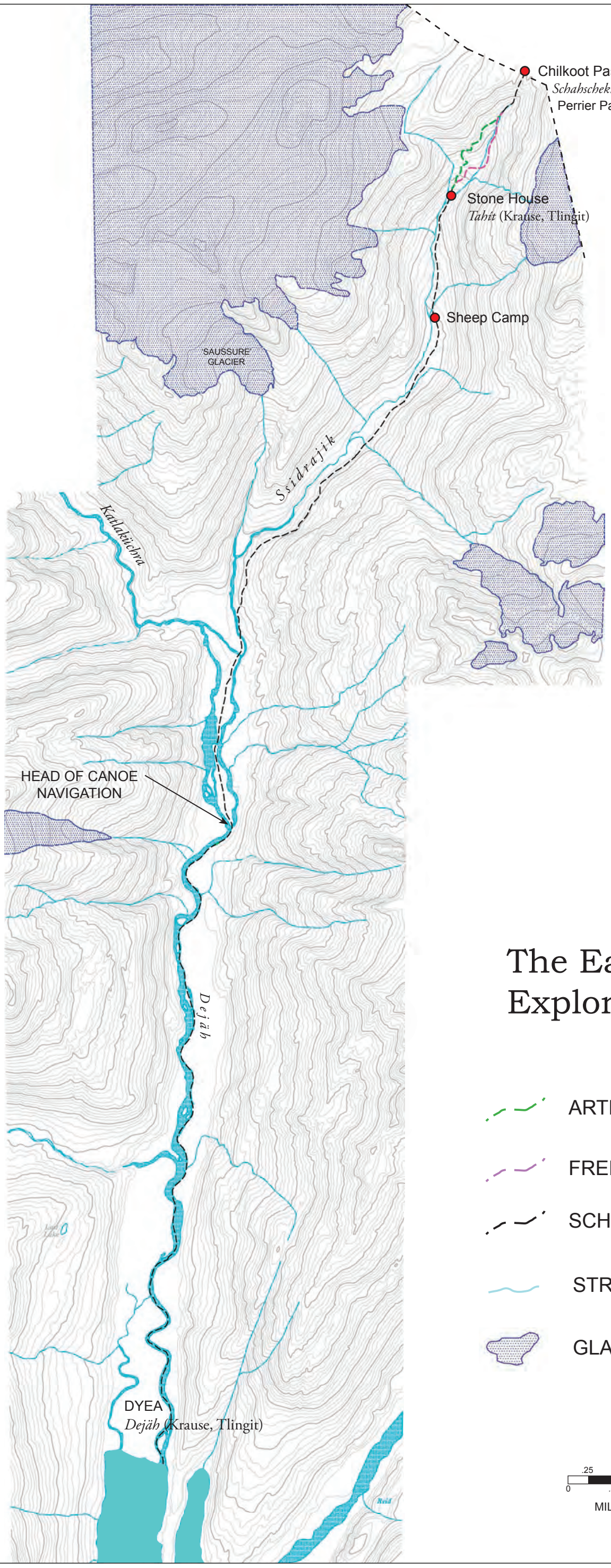
[81]Knox Collection, 9:6:2; Wilma Knox, p. 2
[82]Knox Collection, 9: 6: 1; Robert Knox, p. 3
[83]Ibid. 3
[84]Knox Collection, 9: 6: 2: Wilma Knox, p. 4
[85]Ibid. 4
[86]Ibid. 4
[87]Knox Collection, 9: 6: 1; Robert Knox, p. 5-6
[88]Knox Collection, p. 7
[89]Knox Collection, p. 9
[90]Knox Collection, 9: 6: 1; Robert and Wilma Knox, "Chilkoot: Alaska's Gold Rush Trail," p. 5
[91]Knox Collection, 9: 6: 1; Robert Knox, p. 12
[92]Knox Collection, 9: 6: 1; Wilma Knox, p. 6
[93]Knox Collection, 9: 6: 1, Robert Knox, p. 12
[94]Knox Collection, 9: 6: 1; Robert and Wilma Knox, "Chilkoot: Alaska's Gold Rush Trail," p. 5
[95]Knox Collection 9: 6: 3; Richard White, p. 24
[96]Knox Collection 9: 6: 3; Richard White, p. 25
[97]Knox Collection, 9: 6: 3; Richard White, p. 31
[98]Knox Collection, 9: 6: 3; Richard White, p. 34-35
[99]Neufeld and Norris, 1996: 149
[100]Michael Leach to Bob Knox, DNR CT File #2, 1966-69, Juneau, January 27, 1967
[101]Major sources for this section were the Chilkoot Trail General Files, 1961-66, Division of Natural Resources, State of Alaska (Juneau). Further references will be cited as "DNR." Many of the documents in these files were also part of a Chilkoot Trail Construction History file, KLGO park archives
[102]Norris, *1996:* 60
[103]Norris, 1996: 60; Mike Leach to A. Earl Plourde, May 23, 1961, DNR files
[104]Michael Leach, District Forester to A. Earl Plourde, State forrester, DNR, Chilkoot Trail Files #1 1961-66, May 23, 1961
[105]Michael Leach, District Forester to A. Earl Plourde, State Forester, DNR CT File #1, 1961-66, May 23, 1961
[106]Charles W. Pfeiffer to Dick White, June 7, 1961, DNR CT General Files, Chilkoot Trail Construction file
[107]Michael S. Leach to A. Earl Plourde, "Progress, Chilkoot Trail Project," DNR CT File #1, 1961-66, July 25, 1961
[108]Michael Leach to A. Earl Plourde, "Chilkoot Trail Project," DNR CT File #1, 1961-66, Juneau, May 23, 1962
[109]Larry Dutton, Field Forester to Michael S. Leach, District Forester, "Chilkoot Trail Project" *Memorandum: State of Alaska,* KLGO Archives DNR CT File #1, July 2, 1962; Norris, 1996: 60-61
[110]Dutton to Leach, "Chilkoot Trail Project," DNR CT File #1, 1961-66. July 2, 1962
[111]Dutton to Leach, "Chilkoot Trail Project," July 2, 1962
[112]Dutton to Leach, "Chilkoot Trail Project," July 2, 1962
[113]A. Earl Plourde to Michael S. Leach, "Chilkoot Trail," DNR CT File #1 1961-66, July 20, 1962
[114]Michael S. Leach, Acting Area Forester to A. Earl Plourde, State Forester. "Chilkoot Trail Project Progress Report" KLGO Archives, DNR CT File #1, July 23, 1962
[115]Leach to Plourde, "Chilkoot Trail Project," July 23, 1962.
[116]Leach to Plourde, July 23, 1962
[117]Michael S. Leach, Acting Forester to A. Earl Plourde, State Forester, "Season's Progress Report, Chilkoot Trail Project," KLGO Archives DNR CT File #1, August 28, 1962.
[118]Michael S. Leach, map entitled "Chilkoot Trail Project, 1962," DNR CT File #1, 1961-66.
[119]Barbara Kalen to Michael Leach, DNR CT File #1 1961-66, July 31, 1962.
[120]Leach to Murton, "Chilkoot Trail," DNR CT File 1, 1961-66, Juneau, April 5, 1963.

[121]Michael S. Leach to J.R. Lotz, Northern Research Officer, Northern Co-ordination and Research Center, Ottawa, DNR CT File #1, 1961-66, Juneau, May 24, 1963. No photographic documentation of early interpretive signage has been located to date.
[122]Dutton to Leach, "Chilkoot Trail Inspection Report," DNR CT File #1, 1961-66, July 5, 1963
[123]C. Mehlert to Dorothy Varian, DNR CT File #1, 1962-66, DNR, Juneau, April 27, 1962
[124]Dutton to Leach, "Chilkoot Trail Inspection Report," DNR CT File #1, 1961-66, July 5, 1963.
[125]Knox Collection , UAA, 9: 5: 6; J.R. Lotz, Northern Research Officer, Northern Co-ordination and Research Centre, Department of Northern Affairs and National Resources, Ottawa, Canada, pg. 2
[126]Ibid. 2
[127]Ibid. 2-3
[128]J.R. Lotz, to Tom Murton, DNR CT File #1, 1961-66, Juneau, October 21, 1963
[129]Michael Leach to Phil Holdsworth, DNR CT File #1, 1961-66, Juneau, May 19, 1964
[130]W.R. Morrow (Whitehorse) to Michael Leach, DNR CT File #2, 1966-69, March 7, 1968
[131]Leach to Holdsworth, May 19, 1964
[132]Hall to Leach, DNR, CT File #1 1961-66, Juneau., June 19, August 18, 19, 25, 1965
[133]Edward Hanousek, Mayor to Governor William A.Egan, DNR CT File #1 1961-66, September 14, 1966
[134]Michael S. Leach to G. S. Troller, Paris, DNR, CT Gen File #1, 1961-66, Juneau. July 18, 1966
[135]Michael S. Leach, Acting Area Manager to Bob Knox, *Anchorage Daily Times*. KLGO Chilkoot Trail Construction History File, January 27, 1967
[136]Michael S. Leach, Area Manager to Mr. W. R. Morrow, Director, Department of Corrections, Government of the Yukon Territory. KLGO Archives, Chilkoot Trail Construction History File, March 19, 1968.
[137]Leach to Morrow, DNR CT Files, Juneau, March 19, 1968; Barbara Kalen, "Part of Chilkoot Pass Ship-Shape for Hikers," *Southeast Alaska Empire*, July 22, 1968, p. 9
[138]Michael Leach and Henry Hall, *The Chilkoot Trail: a Guide to the Goldrush Trail of '98* (Juneau: Alaska State Department of Natural Resources, Division of Lands, 1968) See Appendix B for a synopsis of the trail guide text.
[139]Ibid. 8-12; The two routes were identified, but didn't use the term "golden staircase" in the guide.
[140]Michael Leach to Sigurd Olson, DNR, CT File #1, 1961-66, Juneau, Sept. 5, 1963.
[141]Norris*, 1996:* 62, 66, 67, 97-100, 127, 138, 149, 157, 296; Bearss,1970; Dougherty and Horton, *Chilkoot Trail, Klondike Gold Rush National Historic Park Cultural Landscape Inventory*, (Cultural Landscapes Program, NPS Alaska, 2001)
[142]Dougherty and Horton, 2001; Norris, *1996*: 138-39 277-278, 296
[143]Norris*,* 1996:139
[144]Ibid. 139-41
[145]Ibid. 356.
[146]Ibid. 348, 353, 356-58, 449, 452
[147]Mike Shields to Regional Director, PNR-NPS, "Trip Report— Chilkoot Trail, Klondike Gold Rush National Historical Park, August 7-August 14, 1978," DNR, CT Files, General. The file containing Shields' report also included chart-like survey of the proposed changes to the existing trail. The authorship of this document is unknown, although it appears likely that Stondall's engineering background could account for the precision with which the recommendations are tied to a foot-by-foot traverse of the existing trail, as well as an assessment of the level of impact implied by the proposed changes. The other possibility would be that the document originated with Edwards. Photographs corresponding to Shields' narrative were found in the KLGO park archives labeled "Field Inventory, 1977-78" and Field Survey, 1977-78."
[148]Ibid. 1
[149]Ibid. 2
[150]Ibid. 2 Shields based his hierarchy on "problem magnitude and ease of resolution."
[151]Ibid. 3

[152]Ibid. 3
[153]Ibid. 3, 4-6
[154]Ibid. 7-8
[155]Ibid. 8,9
[156]Ibid. 10, 11
[157]Ibid. 11-13
[158]Ibid. 13-15
[159]Ibid. 18
[160]Ibid. 20
[161]Ibid. 20
[162]Norris, 1996: 357
[163]For a history of major bridge construction on the Chilkoot Trail between 1980 and 1995, see Jerry Watson, "Chilkoot Trail Bridges Inventory," (draft, 2001) AKRO CLP Archives. Similar to the Shields report, Watson's history provides the only known narrative of construction on the trail during this period. Watson also contributed to the field documentation of existing conditions and mapping in this report.
[164]Watson, 2001: 40.
[165]Ibid. 53
[166]Ibid. 49-50
[167]Ibid. 32-3
[168]Ibid. 70
[169]Ibid. 14-15
[170]Cathy Gilbert, draft trip report, "Cultural Landscape Recommendations: Chilkoot Trail, Klondike Gold Rush National Historical Park", KLGO Archives, 1989; Karl Gurcke, "Existing Conditions Comments", Notes on Draft of Existing Conditions for the Chilkoot Trail CLR, 2005.
[171]Watson, 2001: 10, 22, 28; As part of the compliance process for bridge replacement, the park commissioned a study of the 6.5 and Rock Garden bridge sites. The report was jointly produced by the Cultural Landscape Program, AKRO, and Land Design North, "Chilkoot Trail Bridges Engineering and Design Study," 2002. See also Worley, "KLGO 65659 Replace Two Trail Bridges Chilkoot Trail MP 6.5 and MP 6.8," Trail Crew Report (Powerpoint File), AKRO CLP Archives.
[172]Some photographs from the Knox hikes of the late 1950s can be found in the Knox collection, University of Alaska-Anchorage. These include shots of their campsites at Canyon City (showing structural remains), Sheep Camp, Scales and the remaining tension towers between Scales and the Summit. During a review of Chilkoot Trail files at the Alaska State Division of Natural Resources, a small folio of undated photographs show a survey party on the trail, presumably the 1961 group that was flagging the route.
[173]Norris, 1996: 358; Carley, 1981
[174] Griffin, 1997

CHILKOOT TRAIL PERIOD MAPS

Map 3



NOTES:

1) The base for this historic map is derived from contemporary physiography and hydrological observations. It is assumed that historic physiographic conditions have not changed significantly, but that historic hydrological conditions may have. When known, historic hydrological and physiographic conditions are estimated.

2) Schwatka and Krause essentially followed the same route. Chilkoot Natives lead both parties through the valley. As such these routes are the only documententation of the trade routes of the Chilkoot Tlingit before the Gold Rush. Skiffs and Canoes were utilized from tidewater to the head of canoe navigation, and the rest of the journey was on foot. Neither Schwatka nor Krause used horses or draft animals for any part of their journeys.

3) Krause notes the names of the major rivers of the Taiya watershed. These names are German transliterations of the Native names. The Taiya river from tidewater to the end of the lower canyon he calls the *Dejäh*, the upper Taiya (from the Canyon to the Pass) he calls the *Ssidrajik*, the Nourse river and Valley, *Katlakūchra.* He also uses the generic Tlingit name for the Pass, *shahschekih (neighboring White Pass was also known as schahschekih)*. Schwatka took it upon himself to name Saussure Glacier, the 'Nourse' valley (*Katlakūchra)* and the Pass (*Schahschekih*), as Perrier Pass. Sheep Camp and Stone House were already known, and named places along the trail.

The Early Euro-American Explorers, 1882-1883

ARTHUR KRAUSE- 1882 (SPRING)

FREDERICK SCHWATKA - 1883 (SPRING)

SCHWATKA AND KRAUSE

STREAMS & RIVERS

GLACIERS

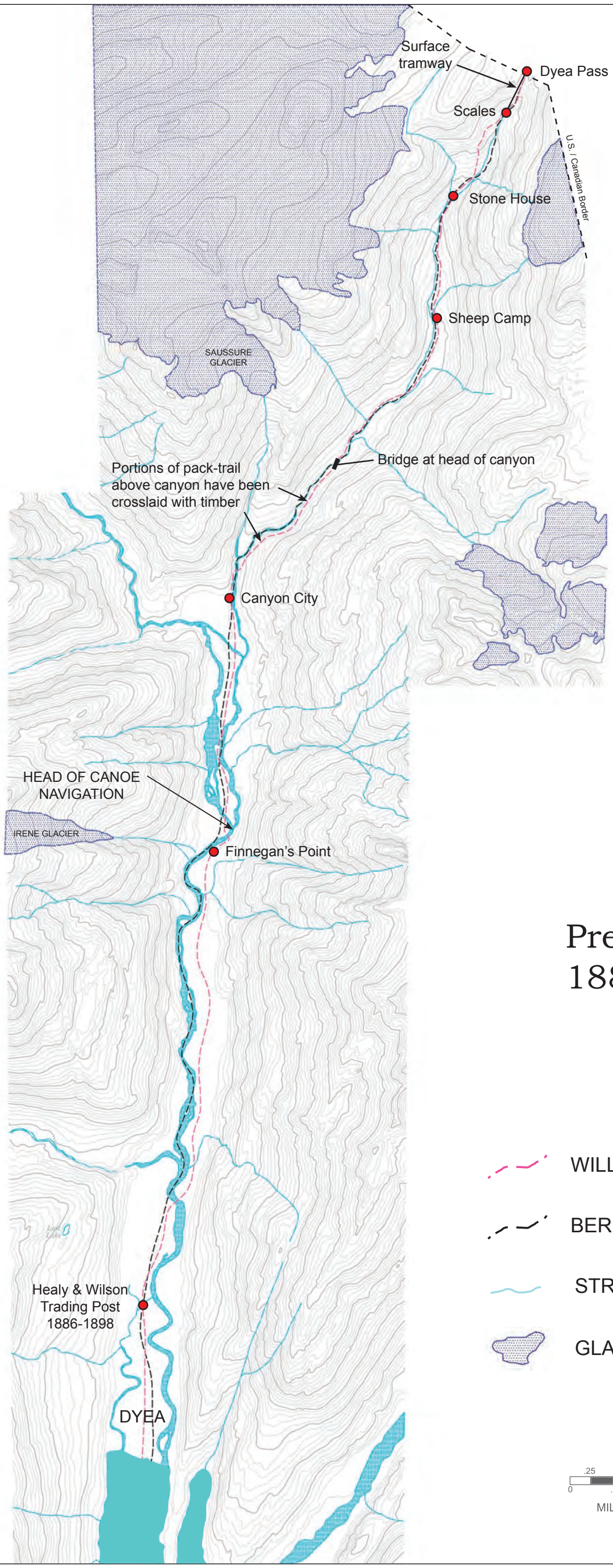
.25 1.0
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MILES

N

contour interval 20 ft.

CHILKOOT TRAIL PERIOD MAP

1882-1883



NOTES:

1) The base for this historic map is derived from contemporary physiography and hydrological observations. It is assumed that historic physiographic conditions have not changed significantly, but that historic hydrological conditions may have. When known, historic hydrological and physiographic conditions are estimated.

2) During this period a crude pack trail had been constructed from Dyea to Sheep Camp. River travel from Dyea to the head of canoe navigation however, was still the preferred method to this point. Horses and foot travel were used from the HCN to Sheep Camp. It was possible to lead horses and draft animals to the Scales area, but in later periods this would become difficult if not impossible. During 1895 or 1896 the pack trail from Dyea to Finnegan's Point was adapted for wagons.

3) During this period the first documented instance of winter travel through the corridor occured. The winter route deviates significantly from the summer route.

Pre-Gold Rush
1884-1896

WILLIAM OGILVIE- 1887 (SUMMER)

BERNARD MOORE- 1887 (WINTER)

STREAMS & RIVERS

GLACIERS

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MILES

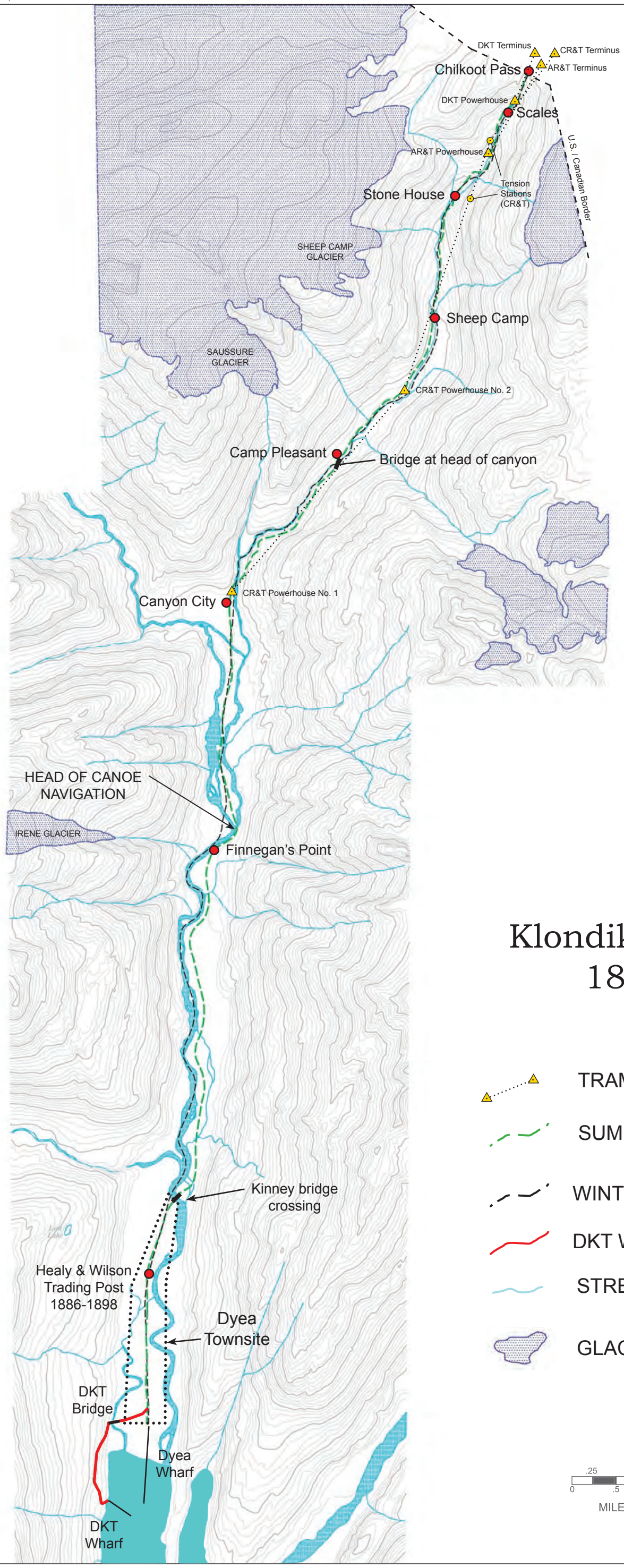
N

contour interval 20 ft.

CHILKOOT TRAIL PERIOD MAP

1884-1896

Map 5



NOTES:

1) The base for this historic map is derived from contemporary physiography and hydrological observations. It is assumed that historic physiographic conditions have not changed significantly, but that historic hydrological conditions may have. When known, historic hydrological and physiographic conditions are estimated.

2) Travel routes became complex during this period. The wagon road from Dyea to Finnegan's Point was expanded to Canyon City and the pack trail from Canyon City to Sheep Camp had been firmly established. After a flood in the spring of 1897 near Stone House, horse travel was no longer possible past Sheep Camp, except in winter. In addition three tramways were installed which expedited the delivery of goods to the summit significantly.

3) Three tramways were put in place between 1897 and 1898, the largest of which was the Chilkoot Railroad and Transport Company tramway (CR&T). The other two, the Alaska Railroad & Transportion Co. (AR&T) and the Dyea-Klondike Transportation Co. (DKT) spanned the distance between Scales and the Pass. The DKT also maintained a wharf and wagon road at Dyea. The surface tramway from Scales to the Pass was also in operation during this period, however due to scale issues it is not represented on this map.

Klondike Gold Rush
1897-1898

TRAMWAYS

SUMMER ROUTE

WINTER ROUTE

DKT WAGON ROAD

STREAMS & RIVERS

GLACIERS

.25 1.0
0 .5
MILES

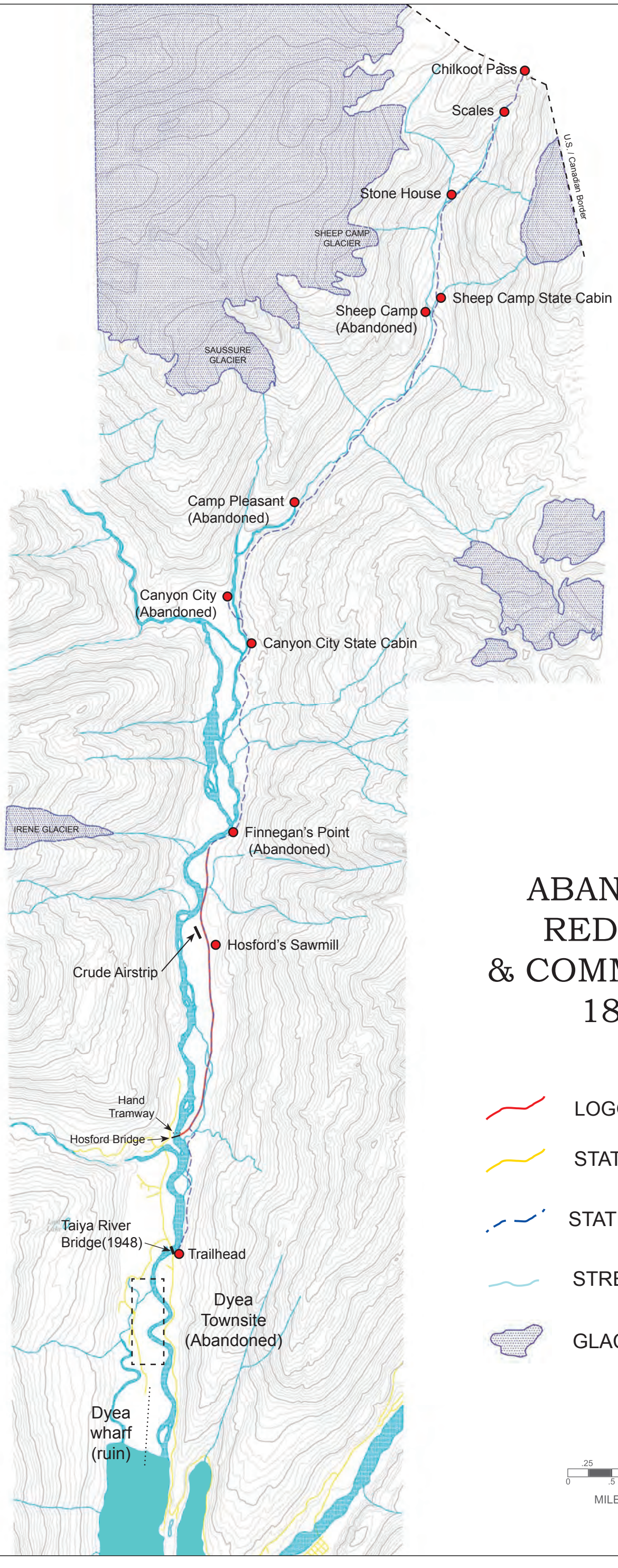
N

contour interval 20 ft.

CHILKOOT TRAIL PERIOD MAP

1897-1898

Map 6



NOTES:

1) The base for this historic map is derived from contemporary physiography and hydrological observations. It is assumed that historic physiographic conditions have not changed significantly, but that historic hydrological conditions may have. When known, historic hydrological and physiographic conditions are estimated.

2) The State of Alaska sponsered the rediscovery and re-establishment of the historic Chilkoot Trail as a recreational hiking trail. Trail reconstruction began in 1962. By 1965 two cabins had been established and the trail blazed to Sheep Camp Cabin. Beyond Sheep Camp cabin, the trail would remain unestablished and opportunistic until park management in 1972.

3) Horses were often taken up the trail during this period, however the main mode of transportation was by foot.

4) Hosford's sawmill was in operation from 1948 until 1956, during which time a logging road was blazed on the east side of the river from just north of the historic Kinney Bridge site to Finnegan's Point. Hosford also built a bridge at the river crossing, it washed out sometime in the late 1950s or early 1960s.

ABANDONMENT, REDISCOVERY & COMMEMORATION 1899-1971

LOGGING ROAD

STATE ROADS

STATE OF ALASKA ROUTE

STREAMS & RIVERS

GLACIERS

.25 1.0
0 .5
MILES

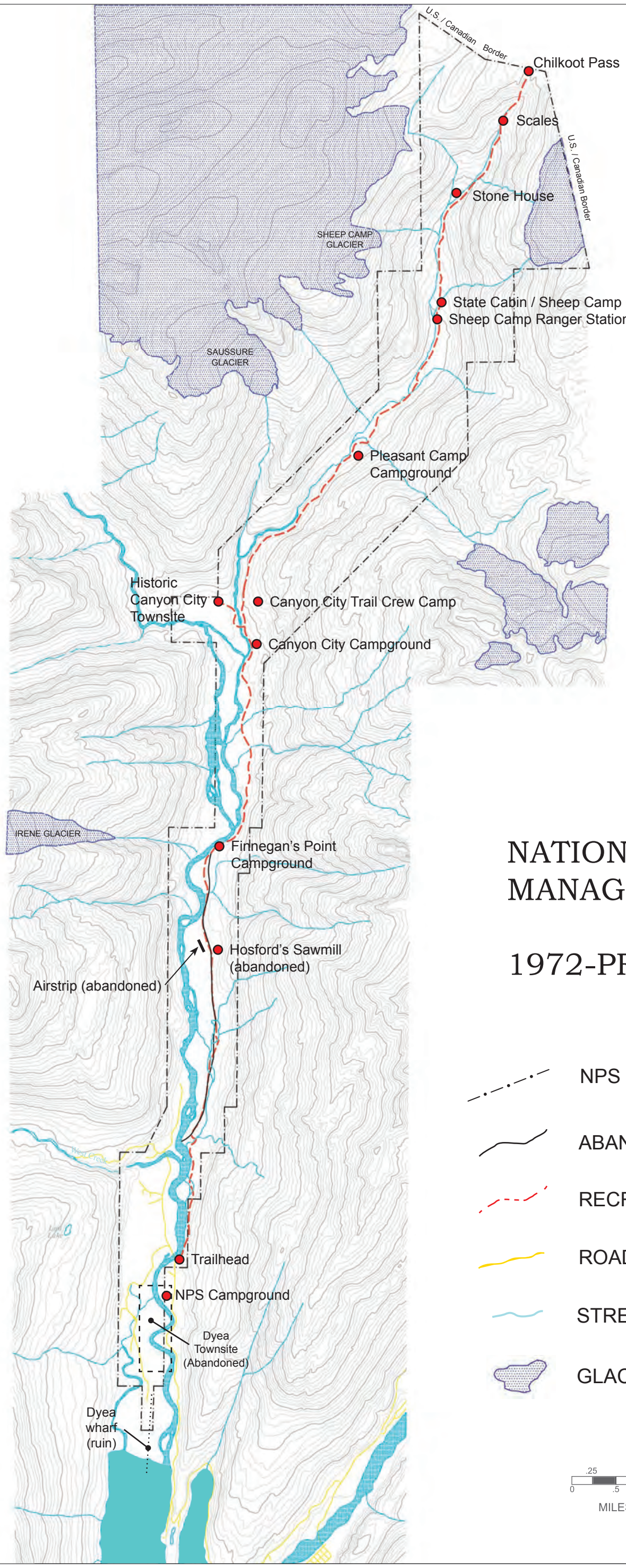
N

contour interval 100 ft.

CHILKOOT TRAIL PERIOD MAP

1899-1971

Map 7



NOTES:

1) The base for this historic map is derived from contemporary physiography and hydrological observations. It is assumed that historic physiographic conditions have not changed significantly, but that historic hydrological conditions may have. When known, historic hydrological and physiographic conditions are estimated.

NATIONAL PARK SERVICE MANAGEMENT

1972-PRESENT

NPS BOUNDARY

ABANDONED LOGGING ROAD

RECREATIONAL TRAIL

ROADS

STREAMS & RIVERS

GLACIERS

.25 1.0
0 .5
MILES

N

contour interval 100 ft.

CHILKOOT TRAIL PERIOD MAP

1972- Present

CHAPTER 3: EXISTING CONDITIONS

ZONE 1
CHILKOOT TRAIL
Mile - 0.0-0.56

ZONE 1

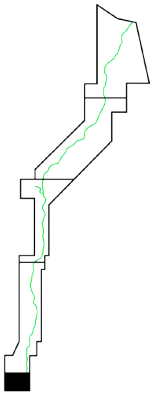
MILE 0.0 TO MILE .56

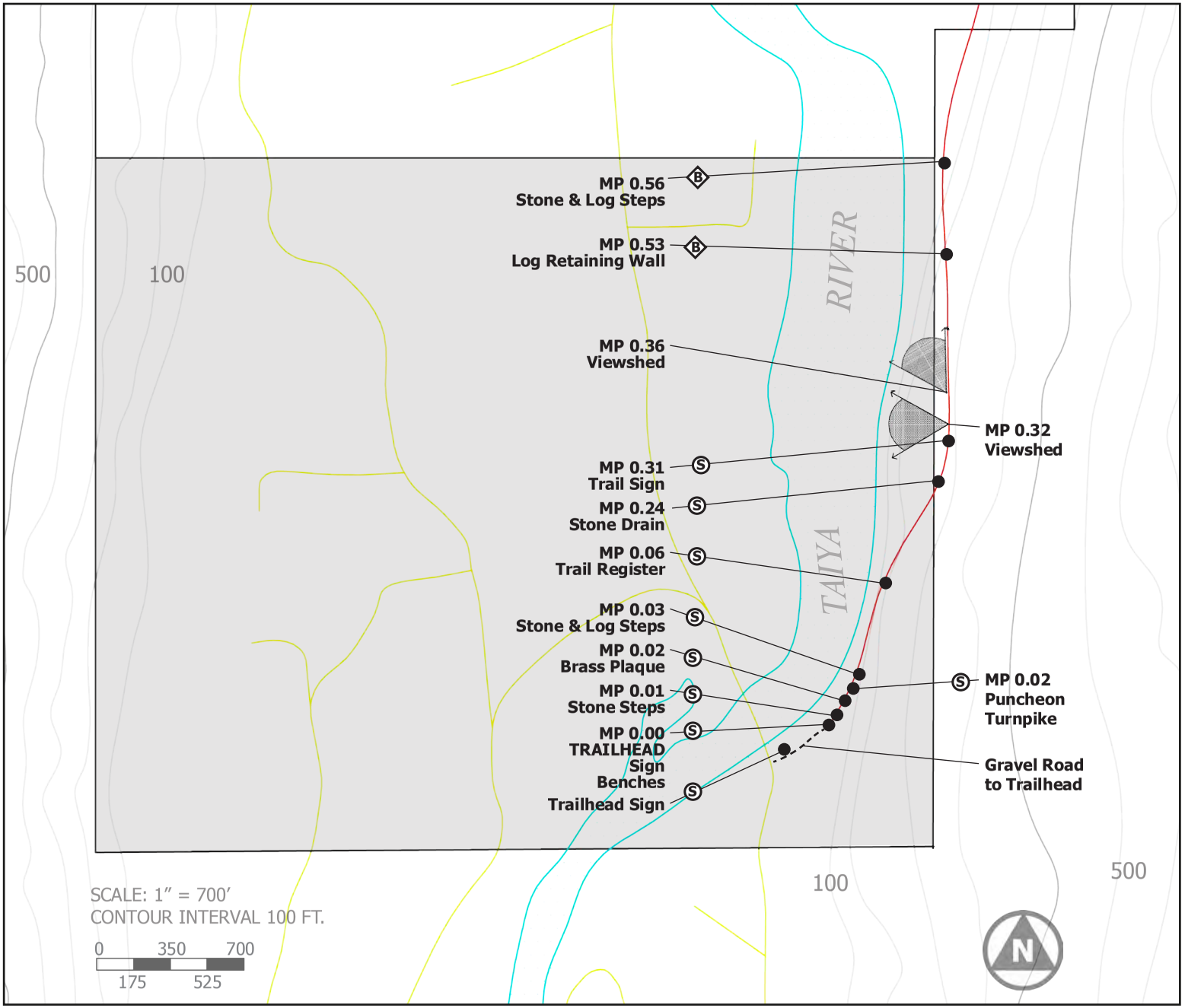
LANDSCAPE
FEATURE MAP

CHILKOOT TRAIL
KLONDIKE GOLD RUSH
NATIONAL HISTORICAL
PARK

LEGEND:

- (B) buildings & structures
- [L] land use
- (S) small scale feature
- Chilkoot Trail
- views & vistas
- rivers / streams
- roads





ZONE I Mile 0.0 to Mile 0.56

Introduction

Zone 1 encompasses the section of trail known as "Saintly Hill" extending from the Trail Head at mile 0.0 to the bottom of the stone and log steps at mile 0.56. Even though much of the Taiya River is included in the zone boundaries, the focus of this section is on the immediate trail corridor east of the river. Zone 1 begins at the trail head alongside the Taiya River. It immediately ascends the hillside, running parralell to the river but high above it for about one half mile before descending back into the Taiya River flood plain. The eastern and western boundaries of this zone are the canyon walls on each side of the Taiya River Valley.

The current route over Saintly Hill was established in the 1960s (although its use may have begun as early as the 1940s) by a State of Alaska survey crew and does not correspond to the known historic Gold Rush trail, which continued on the western bank of the Taiya River for a short distance before crossing the Taiya River. The climb to the top of Saintly Hill and subsequent descent was based both on the public availability of land as well as the high cost of maintaining a structure over Taiya River in place of the historic Kinney Bridge. Map 8 provides an overview of zone 1 and its landscape features.

Throughout the existing conditions chapter (and this entire document) mile points are utilized to identify zone boundaries and features within zones. These mile points are based on the results of a 2003-2004 effort to map the Chilkoot Trail using Trimble GPS equipment. These mile points vary slightly from earlier efforts to map the trail with a wheel, primarily due to numerous trail re-routes as well as precision of measurement. In most instances a wheel measurement would be more precise, however no efforts have been made recently (2008) to establish mile points using this method. In some situations however, such as over rocky and/or steep terrain a GPS unit in capable hands proves to be a far superior instrument for measurement. A master list of major bridges and campgrounds with corresponding, GIS generated mile points can be found in the appendix of this document.

The feature maps at the end of each zone are not GIS based, with the exception that major bridge and campground locations were estimated from GPS data. The other features were interprolated from these points and as such are only estimations of their location along the trail. The feature maps are thus only meant to inform feature sequences along the trail and not represesent exact locations.

Land Use

The landforms within zone 1 have not been visibly shaped by land use other than trail development. The current trail alignment (with minor variations) was constructed by the State of Alaska in the1960s. Historic trail routes through this section did not exist.

Natural Systems and Features

The lower valley is wide and relatively flat with a meandering, braided glacial stream with steep valley walls. The trail in zone 1 ascends the valley wall on the east side of the Taiya River to the summit of Saintly Hill because of the vertical rock walls immediately adjacent to the river on the east side. The hydrology of zone 1 from the Trailhead to mile 0.56 consists of numerous ephemeral creeks that cascade from above the trail. Wildlife can sometimes be spotted here, particularly bald eagles and other bird species along the river banks during the hooligan runs in early summer. Small animals like squirrels and marten are occasionally seen but larger species like black bear, brown bear and mountain goats are rare in zone 1.

Topography

In zone 1, the topography rises from about 50 feet to 300 feet at the summit of Saintly Hill and maintains this elevation for approximately one quarter mile before the descent to the valley floor at mile 0.56. The overall grade through this area (ascent and descent) is more than 20%, with some significantly steeper areas.



Topography

The first 150 feet of the trail is in the flood plain of the Taiya River. The stone and log staircase indicate the trail's steep initial assent to the summit of Saintly Hill.

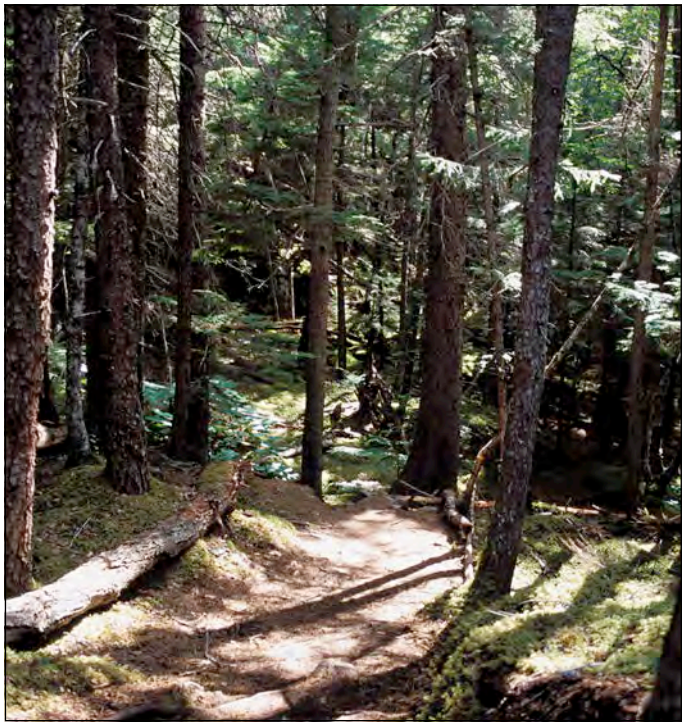


Topography

A closer view of the stone and log staircase reveals the beginning of the transition from riparian vegetation to coniferous forest.

Vegetation

The first 150 feet of trail in zone 1 is a good example of riparian vegetation; this shifts to a coniferous forest plant community as the trail rises in elevation. The remainder of the zone 1 trail corridor is characterized by the coniferous forest plant community.



Vegetation

Most of the vegetation within zone 1 consists of coniferous forest species. These include Sitka spruce, Western hemlock, lodgepole pine and a relatively open understory of mosses and other ground covers.



Vegetation

Moss, fern and fungi dominate the understory of the coniferous forest in zone 1, while many woody shrub species are conspicuously absent. This condition is a largely a result of the relatively dense canopy of the conifer forest, where only a few shade tolerant shrub species, such as *Vaccinium,* thrive.

Circulation

The circulation system consists of a recreational hiking trail surveyed and built in the 1960s with subsequent improvements since that time. The contemporary trail typically consists of 36-inch earthen tread, often embedded with roots and stones and augmented in several locations by gravel and sand. However, trail width varies significantly in this zone due to its heavy use by day hikers and tour groups, and also because of the difficult nature of the terrain. Large groups will often spread out along the trail instead of proceeding single file along it, thus contributing to unusually wide trail width in some places. In addition, the hikers often stop and rest to one side of the trail, thus contributing to a widening of the trail tread in this zone. The trail is reinforced with log retaining walls and stone steps to deal with the steep grades of Saintly Hill. Stone and log drainage features are also common in zone 1 (see Small Scale Features).



Circulation

Location: Near the trailhead
Description: Access road to trail head
Notes: This short gravel road runs alongside the Taiya for about 50 yards and ends at the trail head.



Circulation

Location: Mile 0.0
Description: Trailhead with signage.
Notes: The access road ends here in a cul de sac where the trail begins.



Circulation

Location: Mile 0.35
Description: Wider trail width is a result of heavy day hiker and tour group use in zone 1.



Circulation

Location: Mile 0.5
Description: Typical trail character on steep descent from summit of Saintly Hill.

Views and Vistas

In zone 1 the dense coniferous forest constrains most views and vistas. Where forest openings exist, the views are always across the river to the west and north due to the trail location on the east canyon wall. These views are generally framed by surrounding vegetation.



Views and Vistas

Location: Mile 0.32
Description: Naturally occurring viewshed to the river partially obscured by vegetation. Viewshed orientation to the west overlooking Taiya River, located at the summmit of Saintly Hill.



Views and Vistas

Location: Mile 0.36
Description: Looking northwest, overlooking Taiya River towards Mt. Yeatman.

Buildings and Structures

Structures identified within zone 1 include trail stabilizing elements such as log retaining walls and stone steps, as well as an informational trail registry sign.



Buildings and Structures

Location: Mile 0.03
Feature: Stone and log steps
Description: Stone steps with stone sidewalls, constructed with local materials and backfilled with sand and clay.
Year Constructed: 1995



Buildings and Structures

Location: Mile 0.06
Feature: Trail register
Description: Trail register with canopy, constructed of wood and plexiglas.
Year Constructed: c. 1983. (Relocated from Mile 0.0 in 1991).



Buildings and Structures

Location: Mile 0.53
Feature: Log retaining wall
Description: Native logs, stone, and fill
Year Constructed: 1990
Notes: Retaining walls of this type are used to stabilize the trail and reduce erosion.



Buildings and Structures

Location: Mile 0.56
Feature: Stone/log steps
Description: A stone and log staircase with gravel and sand fill descend to the floodplain and the end of zone 1.
Year Constructed: 1995

Small Scale Features

Small-scale features in zone 1 include benches, stone and log steps, a puncheon structure, signage, and a commemorative marker.



Small Scale Features

Location: Dyea Road
Feature: Wooden sign
Description: Chilkoot Trail Head sign, wooden sign with routed letters.
Year Constructed: 1987



Small Scale Features

Location: Mile 0.00
Feature: Sign and bench
Description: Recycled plastic bench with metal posts. There are two of these benches currently at the Trailhead. There is also a routed wood sign.
Year Constructed: 1997 (sign) and 2003 (benches)



Small Scale Features

Location: Mile 0.01
Feature: Stone steps
Description: Stone steps with stone sidewalls, constructed with local materials and backfilled with sand and clay.
Year Constructed: 1987



Small Scale Features

Location: Mile 0.02
Feature: Brass plaque
Description: Brass plaque mounted on post commemorating the National Historic Landmark designation.
Year Constructed: 1987



Small Scale Features

Location: Mile 0.02
Feature: Puncheon/turnpike
Description: A combination of puncheon bridge and turnpike. Native logs, fill and gravel.
Notes: This design raises the trail tread above a muddy area while allowing occasional floodwater from river to flow through to lower ground.
Year Constructed: 2003



Small Scale Features

Location: Mile 0.24
Feature: Stone Drain
Description: Stone step drain placed to narrow ephemeral stream crossing.
Year Constructed: 1986
Note: These stone abutments are quite common for small stream crossings. They are visually unobtrusive while serving to prevent trail erosion and easy pedestrian crossing.

Small Scale Features

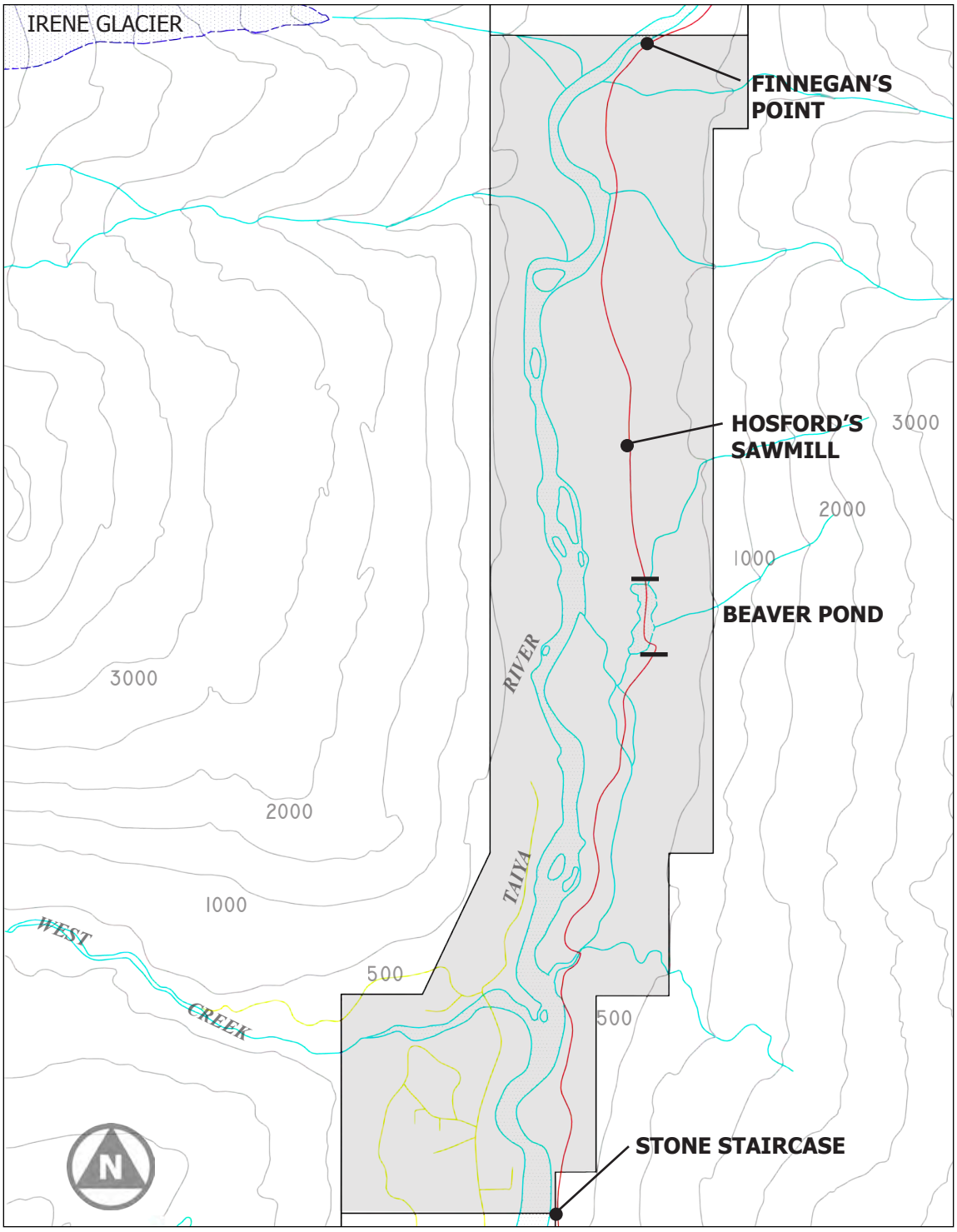
Location: Mile 0.31
Feature: Trail route marker
Description: Wooden sign affixed to tree with painted message, "Trail"
Year Constructed: Unknown, c. 1960s



Archeological Features

There are no known archeological sites or features in zone 1 primarily due to its non-historic construction and use dating from mid-1960 to the present day.

ZONE 2
CHILKOOT TRAIL
Mile - 0.56-4.96

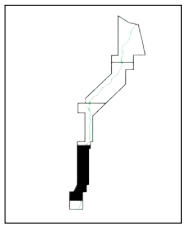


LEGEND:

Chilkoot Trail

roads

rivers / streams



ZONE 2

1" = 2900'

CONTOUR INTERVAL 500 FT.

ZONE 2 - Mile 0.56 to Mile 4.96

Introduction

Zone 2 consists of a section of trail between mile 0.56 and mile 4.96, which is just beyong Finnegan's Point campground. Beginning at the base of Saintly Hill (MP 0.56) the trail runs along the wide valley bottom to Finnegan's Point. The gradual topography along the flood plain and riparian vegetation throughout provides a unifying character to the trail in this zone.

Within zone 2 some sections of the trail relate to historic use. Whether by river or travelling on foot or horseback, all trails intersected at a tent camp and services area called Finnegan's Point. This is the northern terminus of this zone due to its known historical context and the visible change in terrain character north of the site.

The current recreational route was established in the early 1960s by grading an existing logging road (which was originally created around1946 to service the Hosford Sawmill) and altering the location of the trail around the mill area. Map 9 provides an overview of zone 2 and Map 10 identifies its landscape features.

Land Use

Land use practices in zone 2 visibly shaped the trail character, especially commercial logging during the 1940s-50s. Structural remains of the sawmill and cabin as well as an abandoned 70s era landing strip are located along the trail route, and the trail follows the old logging road for approximately 3.2 miles. Current land use within the corridor is limited to recreation, including trail maintenance and the campground at Finnegan's Point.



Land Use

Abandoned Road Trace
Location: Mile 3.10
Notes: This road trace leads back to the sawmill site and a large sawdust pile. From 1980-1983 this site was used as an unoffical camping area and later as a helicopter drop area for trail construction materials.



Land Use

Sawmill Site
Location: Mile 3.13
Notes: The Hosford's operated a sawmill and camp at this location between 1948 and 1956.



Land Use

1970s era Air Strip
Location: Mile 3.80
Notes: Former trails foreman Jerry Watson (1980-1998) reports that this area was once used as an unoffical airstrip during the late 1970s and early 1980s (Watson, 2003: 9).



Land Use

Finnegan's Point campground
Location: Mile 4.94
Notes: Finnegan's Point is currently the first official campsite on the trail.

Natural Systems and Features

Zone 2 encompasses the lower reaches of the the Taiya River Valley, with steep valley walls and, in some places, sheer cliffs reaching 100 feet or more. The trail follows the eastern edge of the Taiya River and crosses multiple braids and feeder streams. Thick riparian vegetation is dominant throughout this zone, but the occasional stand of second growth spruce is present as well. This area was logged for spruce and lodgepole pine between 1948 and 1956, evidenced by the logging road and the old mill site.

The Taiya River is heavily braided through the lower valley, creating many small islands and rock bars. The banks of the river are in constant flux, and they are often strewn with dislodged trees and brush washed down from higher elevations. This detritus collects at bends in the river, eventually redirects flow, eroding the banks and dislodging vegetation. Huge upturned cottonwoods and spruce with their root systems still intact are common along the banks.

Since the trail is located within the floodplain, structures such as bridges are subject to flood damage. High-water often inundates portions of the trail. Once the trail tread is saturated, recreational users tend to walk around the muddy area, which widens the trail and destroys vegetation. Creating turnpikes with gravel tread, and installing a number of drainage features to divert high water away from the trail corrected some of this recurrent condition. Zone 2 is particularly suitable to black bears because of the dense vegetation and abundant food sources such as berries and salmon. In zone 2, the most obvious impact of wildlife is the beaver pond, which extends from approximately mile 2.68 to 2.9. The beaver pond began flooding the trail in the summer of 1995 and work on the boardwalk began the following summer. The pond continues to expand and in some sections, the beavers have incorporated the boardwalk into their dam system. Other aquatic species such as salmon and hooligan are prevelent on a seasonal basis. Bald eagles sometimes make their nests in the more secluded parts of this zone, but are typically found closer to Dyea.



Natural Systems and Features

View northeast of intermittent stream at mile 2.36.



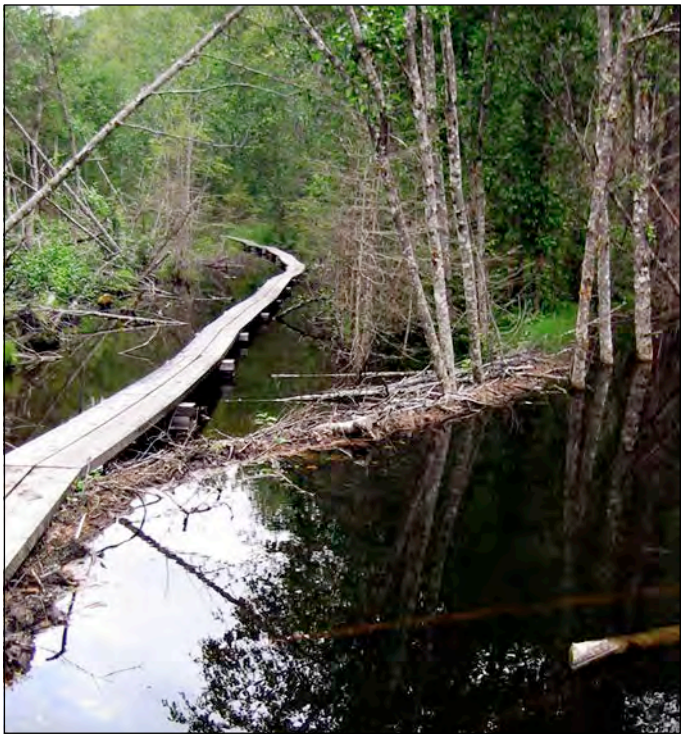
Natural Systems and Features

View northwest of intermittent stream at mile 2.36.



Natural Systems and Features

Washed out approach to steel bridge #2 at mile 2.47, indicative of frequent flooding in zone 2.



Natural Systems and Features

Portion of the plank boardwalk now incorporated into the beaver dam.



Natural Systems and Features

Salmon remains indicate bear presence.



Natural Systems and Features

Bear grub marks near the trail indicate bear presence.

Topography

In zone 2, the trail follows the valley floor from mile 0.56, rising gradually to about 300 feet at mile 4.9 at Finnegan's Point. The overall grade through this area is roughly two percent. The minimal topography in this zone results in river meander across the valley floor and flooding is a common occurrence. Trail construction and maintenance responds largely to these hydrological factors, resulting in frequent bridge replacement, trail realignment, numerous drainage structures, and tread repair. A major drainage system consisting of a network of ditches was constructed between mile 4.47 and 4.86 in 1983-1985.



Topography

Location Mile 0.77
Description: Drainage Ditch
Year Constructed: 1989
Notes: In the lower portion of zone 2, the canyon wall rises nearly vertically from the valley bottom. The drainage ditch collects runoff from the canyon wall. The ditch is now overgrown with plant material, limiting its effectiveness.



Topography

Location Mile 4.47 - 4.86
Description: Drainage ditch system
Year Constructed: 1984-1987
Notes: A constructed system of drainage ditches south of Finnegan's Point. Pictured here is the first crossing over a constructed water channel that leads back to the Taiya River.



Location: Mile 4.6
Description: Midway collection point of drainage ditch system.
Year Constructed: 1984-1987
Notes: at this point a stream flows in from the east, and is met by the drainage ditches. A weir (lower right) directs most of the water across the trail to the Taiya River, overflow continues down-trail to the crossing pictured on the previous page.



Topography

Location: Mile 4.65
Description: Typical trail crossing
Notes: Ditch allows water to pass across the trail. There are fifteen similar crossings spaced about 20 yards apart in this area.

Vegetation

The primary vegetation in zone 2 is second growth forest primarily composed of riparian plants in a heavily braided flood plain. The canopy consists of cottonwood trees and alder, occasionally interspersed with hemlock and Sitka spruce near the hillsides. The deciduous forest floor is dense with shrubs and groundcover, making off-path foot traffic difficult through much of this zone. Plants commonly found in zone 2 include:

• Occasional stands of second growth coniferous trees including Sitka spruce (*Picea sitchensis*), Western hemlock (*Tsuga heterophylla*) and some lodgepole pine (*Pinus contorta ssp. murrayana*) A few old growth specimens are located in this zone.

• Second growth deciduous trees consisting primarily of black cottonwood (*Populus balsamifera*), paper birch (*Betula papyrifera*), Pacific willow (*Salix lasiandra*) and red alder (*Alnus rubra*).

• Shrubs and ground cover including: Alaska brome (*Bromus sitchensis*), black gooseberry (*Ribes lacustre*), bluejoint (*Calamagrostis canadensis*), bracken fern (*Pteridium aquilinum*), common sweetgrass (*Hierochloe odorata*), cow parsnip (*Heracleum lanatum*), devil's club (*Oplopanax horridum*), deer fern (*Blechnum spicant*), Douglas maple (*Acer glabrum*), false lily of the valley (*Maianthemum dilatatum*), fragile fern (*Cystopteris fragilis*), giant horse tail (*Equistetum telmateia*), goat's beard (*Aruncus dioicus*), highbush cranberry (*Viburnum edule*), Indian hellebore (*Veratrum viride*), large leaved avens (*Geum macrophyllum*), narrow beach fern (*Thelypteris phegopteris*), nettle (*Urtica dioica*), nodding trisetum (*Trisetum cernuum*), Nootka rose (*Rosa nutkana*), Northern groundcone (*Boschniakia rossica*), chocolate lily (*Fritillaria camschatcensis*), pink wintergreen (*Pyrola asarifolia*), pearly everlasting (*Anaphalis margaritacea*), red elderberry (*Sambucus racemosa*), red fescue (*Festuca rubra*), red columbine (*Aquillegia Formosa*), rosy twisted stalk (*Streptopus roseus*), serviceberry (*Amelanchier alnifolia*), sheep sorrel (*Rumex acetosella*), shaggy mane (*Coprinus comatus*), Sitka willow (*Salix sitchensis*), spiny wood fern (*Dryopteris expansa*), stinging nettle (*Urtica dioica*), thimbleberry (*Rubus parviflorus*), trailing black currant (*Ribes laxiflorum*), tufted hairgrass (*Deschampsia caespitosa*), wild cranberry (*Vaccinium oxycoccus*), wild flag (*Iris setosa*), wood reedgrass (*Cinna latiflora*), yarrow (*Achillea millefolium*).



Vegetation

The vegetation in zone 2 is primarily riparian due to the trail location within the floodplain. The photograph at right at approximately mile 1.5 shows proximity of the trail to a side channel of the Taiya and the typical riparian vegetation along this waterway.



Vegetation

Dense understory constrains trail traffic, limiting social trail development.



Vegetation

High bush cranberry *(Viburnum edule)*, goatsbeard *(Aruncus sylvester)*, and devil's club *(Oplopanax horridus)* are common understory, trailside species.



Vegetation

Devil's club *(Oplopanax horridus)*, indicates wet marshy areas, and is a favorite berry source for black bears in the fall.

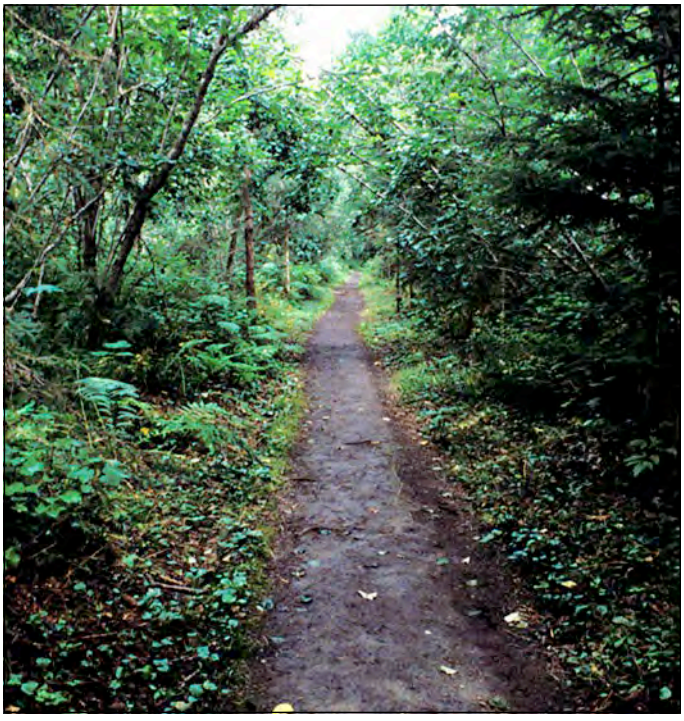
Circulation

In zone 2, the trail from mile 0.56 to mile 1.6 is earthen tread approximately 36 inches in width. Between mile point 1.6 to Finnegan's Point campground the hiking trail incorporates sections of the old logging road, and varies in width from 5 to 8 feet. This portion of the trail can easily accommodate two people abreast. Many sections of trail through zone 2 were rerouted due to flooding. At mile 2.68, a boardwalk was built to help recreational users through an area inundated by a beaver pond. The overall grade of the trail through zone 2 is uniform at about two percent slope. The trail alignment generally runs along the valley floor through zone 2, with an exception at mile 0.9, where the trail is routed up the hillside a short distance to avoid and then to cross a slough. A short spur trail is located at mile 1.6 connecting the trail to the Taiya River. The trail spur is used by NPS staff and tour groups to access the river launch site for rafting across and down the river. This was a part of the Hosford logging road and led to a bridge over the Taiya. This location used to have a hand tram which was used to access the trail during the 60's and 70's.



Circulation

Location: Mile 0.56 to Mile 1.6
Description: Earthen tread maintained to 36 inches in width. Trail is generally free of rocks and gradual in slope.



Circulation

Location: Mile 1.6 - Mile 4.9
Description: Trail incorporates an old logging road. Minor rerouting occurs in some places due to flooding.



Circulation

Location: Mile 1.6
Description: Spur Trail to Taiya River on the right, main trail to the left.



Circulation

Location: Mile 2.68 - 2.9
Description: Although the trail follows the old logging road, a boardwalk provides dry passage through an area inundated by a beaver pond that began to flood the trail in the summer of 1995.

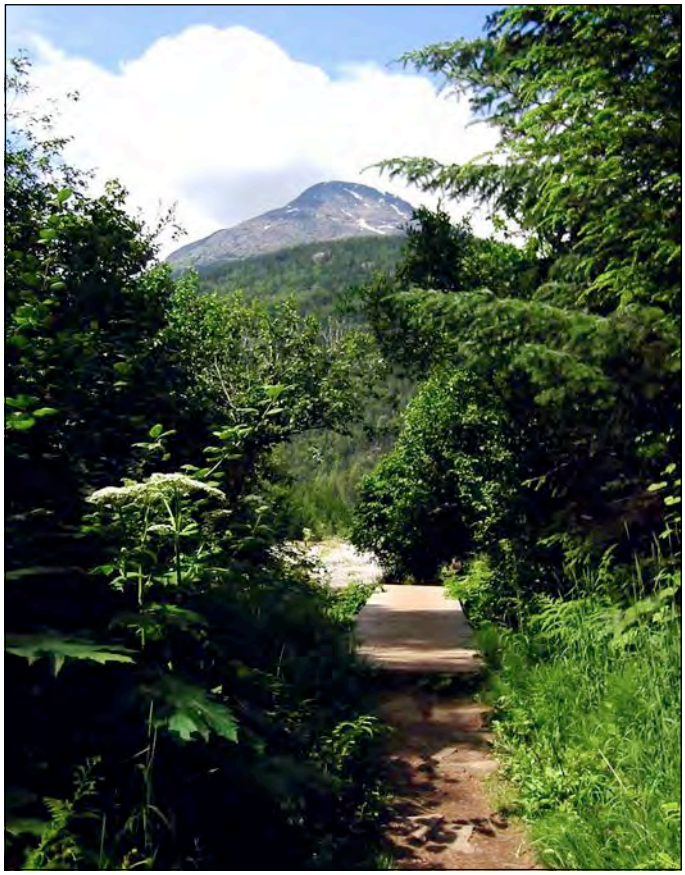


Circulation

Location: Mile 3.26
Description: Trail rerouted around previously flooded and damaged section of the old logging road. Length of reroute is less than .1 mile.

Views and Vistas

Multiple views and vistas occur within zone 2 where the trail corridor intersects or closely parallels the river. In some cases vistas were opened by clearing and thinning. In others these openings occur naturally to create views across the river to the west, and in some cases provide northern or southern valley views, framed by surrounding riparian vegetation.



Views and Vistas

Location: Mile 1.05
Description: Naturally occuring view to the north west.



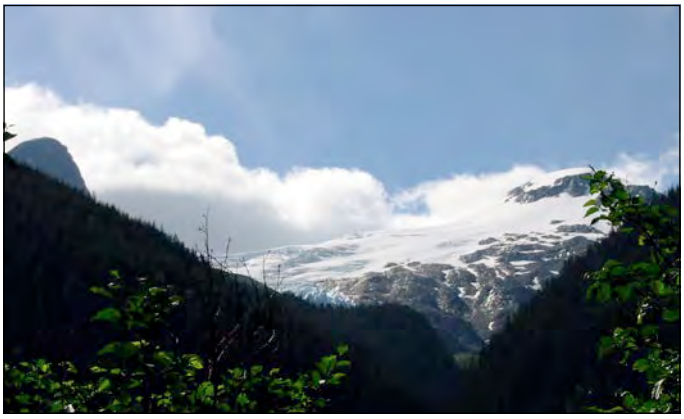
Views and Vistas

Location: Mile 1.2
Description: Constructed vista of West Creek valley and glacier.

Views and Vistas

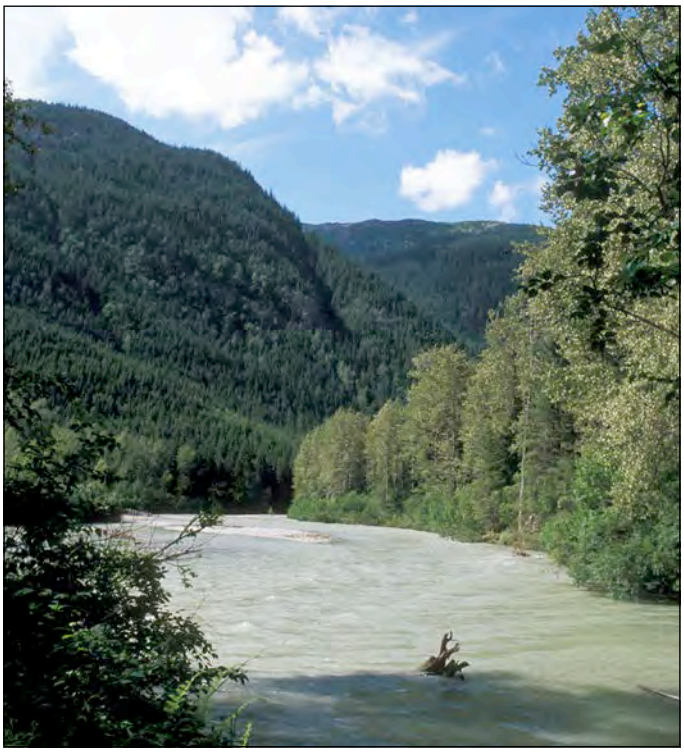


Location: Mile 1.82
Description: Naturally occurring viewshed to the west, 120 degrees.



Views and Vistas

Location: Mile 4.34
Description: View to the west of Mt. Yeatman and southern fingers of Irene Glacier.

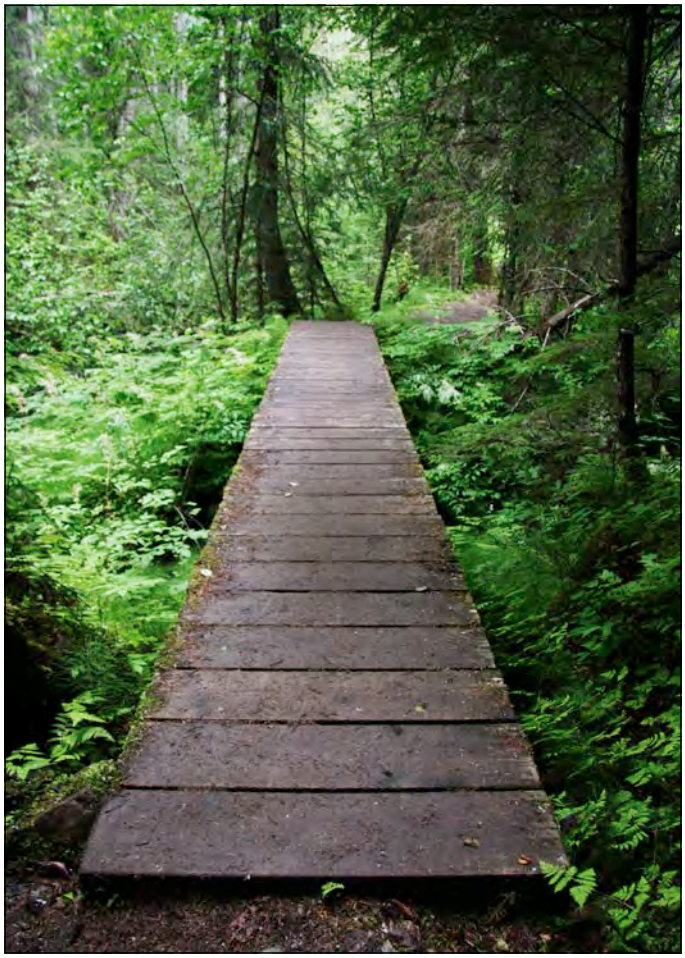


Views and Vistas

Location: Mile 4.37
Description: Naturally occurring view oriented to the north from a deep cut in the bank of the Taiya River. Main flow of river is to the left; bottom right corner is the cut in the bank which created the view.

Buildings and Structures

The majority of buildings and structures in zone 2 relate to drainage and river crossings. Finnegan's Point is a designated NPS campground with tent pads, a pit toilet, and warming shelter.



Buildings and Structures

Location: Mile 0.93
Name: Stairway to Heaven Bridge
Description: Glu-lam beams with milled 4"x12"x4' cedar decking.
Length: 39 feet
Year Constructed: 1999 (replacement)
Notes: Original bridge constructed in 1981.



Buildings and Structures

Location: Mile 1.05
Name: Boomerang Bridge
Description: Glu-lam beams with milled 4"x12"x4' cedar decking.
Length: 34 feet
Year Constructed: 1999 (replacement)
Notes: Replaced bridge constructed in 1981.



Buildings and Structures

Location: Mile 1.53
Name: Steel 1 (aka. 1 and 1/2 mile)
Description: Cor-Ten steel with milled (treated wood) decking. This replacement bridge is located slightly north of the original bridge site.
Length: 93 feet
Year Constructed: 1991 (replacement)
Notes: Original bridge constructed in 1982-83 approximately 100 yards downstream.



Buildings and Structures

Location: Mile 2.36
Name: Dry Fork bridge
Description: 2”x10” beams with milled 4”x12” cedar decking.
Length: 54 feet
Year Constructed: 1997 (replacement)
Notes: Original bridge constructed in 1983. This image was taken after a minor flood event in 2008, thus the “dry fork” is now full.

Buildings and Structures

Location: Mile 2.36 (south approach)
Name: Dry Fork Bridge
Description: Log retaining wall approach backfilled with sand and gravel.
Year Constructed: 1997



Buildings and Structures

Location: Mile 2.47
Name: Steel 2
Description: Cor-Ten steel with milled (treated wood) decking.
Length: 62 feet
Year Constructed: 1999
Notes: Original bridge constructed in 1983. In the fall of 1994 the bridge was washed downstream. The bridge was disassembled, brought back, and rebuilt at the site in 1995. This bridge was formerly known as "Beaver Dam" bridge.



Buildings and Structures

Location: Mile 2.47
Name: Steel 2 (North approach)
Description: Wooden approach. Milled 4"x12" cedar decking on 2"x10"x 20' beams.
Year Constructed: 1999
Note: The bridge replaced was constructed in 1983. The north bridge approach was re-stabilized in 2005 but continues to wash out due to frequent incidents of high water, as pictured here in 2008.





Buildings and Structures

Location: Mile 2.68 - 2.9
Description: Wooden boardwalk, 4”x12” cedar planks on 6”x 6” block piers.
Length: Approx. 1500 feet
Year Constructed: 1999-2000



Buildings and Structures

Location: Mile 3.13
Description: Hosford’s storage shed. (abandoned)
Year Constructed: c. 1948



Buildings and Structures

Location: Mile 3.17
Description: Wooden boardwalk, 4”x12” cedar planks on 6”x 6” block piers.
Length: Approx. 1000 feet
Year Constructed: 1999-2000



Buildings and Structures

Name: Ouzel Bridge
Location: Mile 3.19
Description: Wood bridge. 4”x12”x20’ beams with milled 4”x12”x4’ cedar decking.
Length: 20 feet
Year Constructed: 1999 (replacement)
Notes: Original bridge constructed in 1984.



Buildings and Structures

Name: Ouzel Turnpike
Location: Mile 3.19
Description: Wood pole frame with gravel fill.
Length: 15 feet
Year Constructed: 1999
Notes: Beaverpond water has inundated trail in this location and turnpike has since been abandoned. Trail runs to the right of turnpike now on higher ground.



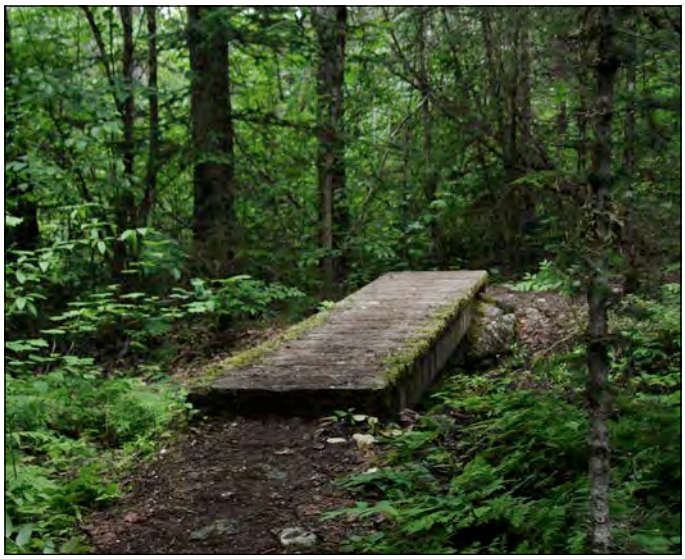
Buildings and Structures

Location: Mile 3.29
Name: Eagle Rock (replacement)
Description: Wooden Bridge. Glu-lam beams with milled 4”x12”x4’ cedar decking.
Length: 33 feet
Year Constructed: 1999 (replacement)
Notes: Replaced bridge constructed in 1984.



Buildings and Structures

Location: Mile 4.43
Name: South Ditch Bridge
Description: Log Bridge. Log stringers with milled 4”x12”x4’ cedar decking.
Length: 27 feet
Year Constructed: 2004 (replacement)
Notes: Replaced bridge constructed in 1991, which was a replacement of a bridge from 1984.



Buildings and Structures

Name: North Ditch Bridge
Location: Mile 4.77
Description: Glu-lam bridge. 4”x10”x20’ stringers with milled 4”x12”x4’ cedar decking.
Length: 20 feet
Year Constructed: 1987

Buildings and Structures

Location: Mile 4.94 (Finnegan's Point)
Description: Finnegan's Point tent platforms. Platforms are constructed of 4"x4" treated beams and 2"x6" treated decking. Dimensions are 10'x10.'
Year Constructed: 1987



Buildings and Structures

Location: Mile 4.94
Description: Finnegan's Point pit toilet. Milled timber frame with plywood siding, milled trim, corrugated tin roof.
Year Constructed: 1987
Notes: Pit toilets of some sort existed at this site as early as 1985. Original shelter material was green fiberglass.



Buildings and Structures

Location: Mile 4.94
Description: Warming shelter. Wood framing with canvas cover.
Year Constructed: 1993
Notes: This is a semi-permanent structure with a wood stove.



Small Scale Features

Small scale features in zone 2 include retaining structures, stone steps, directional and informational signage, interpretive displays, and campground furnishings.



Small Scale Features

Location: Mile 0.87
Feature: Stone Steps
Description: Native stone and fill
Year Constructed: 1984



Small Scale Features

Location: Mile 0.93
Feature: Stone Step Bridge Approach
Description: Native stone and fill
Year Constructed: 1984



Small Scale Features

Location: Mile 1.6
Feature: Directional signage
Description: Routed wood.
Year Constructed: 1985



Small Scale Features

Location: Mile 1.6
Feature: Directional signage
Description: Routed Plastic.
Year Constructed: 2006



Small Scale Features

Location: Mile 2.52
Feature: Plank crossing
Description: Two 4”x12” cedar planks, 20 feet long and 2 feet wide with a center crib.
Year Constructed: 2005 (replacement)
Note: Replaced a single plank crossing similar to the one pictured below. The crossing bridges an overflow slough from a nearby beaver pond.



Small Scale Features

Location: Mile 2.59
Feature: Plank crossing
Description: 4”x12”x12’ cedar plank
Year Constructed: 1999-2000
Notes: Crossing bridges an ephemeral low spot which fills with overflow from a nearby beaver pond during flood events.



Small Scale Features

Location: Mile 2.84
Feature: Trail sign
Description: Routed wood
Year Constructed: 1997
Notes: There is another identical sign at the north end of this property.



Small Scale Features

Location: Mile 3.08
Feature: Single plank walk.
Description: 4”x12”x12’ wood planks
Year Constructed: 2007(replacement)
Notes: Replaced a similar single plank structure, formerly supported only by 6”x6” blocks. Rising water levels necessitated more substantial support structures.



Small Scale Features

Location: Mile 3.19
Description: Turnpike Reroute with 4”x 12”x12’ plank.
Length: 12 feet
Year Constructed: 2007



Small Scale Features

Location: Mile 3.24
Feature: Plank crossing
Description: 3”x12”x8’ wood planks
Year Constructed: 2000



Small Scale Features

Location: Mile 3.67
Feature: Turnpike.
Description: Native logs and fill
Year Constructed: 1990

Small Scale Features

Location: Mile 4.94
Feature: Interpretive sign
Description: Pre-fabricated steel and fiberglass construction (NPS Harper's Ferry style)
Year Installed: 1988



Small Scale Features

Location: Mile 4.94
Feature: Locational sign
Description: Routed wood
Year Constructed: Unknown, probably 1980s era.



Small Scale Features

Location: Mile 4.94
Description: Food Storage Locker
Year Constructed: c. 2007





Small Scale Features

Location: Mile 4.94
Feature: Bear Pole
Description: Metal (galvanized steel), embedded in concrete.
Year Constructed: 1990

Archeological Features

All of the Finnegan's Point campground, and numerous areas north, west, east and south of the campground contain archeological deposits. In addition, there are several locations identified as part of the Gold-Rush historic wagon road. Two of the traces are situated two to three hundred yards west of the current trail alignment, and a third site occurs at approximately Mile 4.17, where an old wooden dowel (which once held a glass telephone insulator) is attached to a Sitka spruce. The dowel is a remnant of a telephone line installed during the Gold Rush era, the historic wagon road may have also run along this section of contemporary trail.



Archeological Feature

Sitka spruce next to trail south of Finnegan's Point with wooden dowel (detail bottom right) which once held a glass telephone insulator.

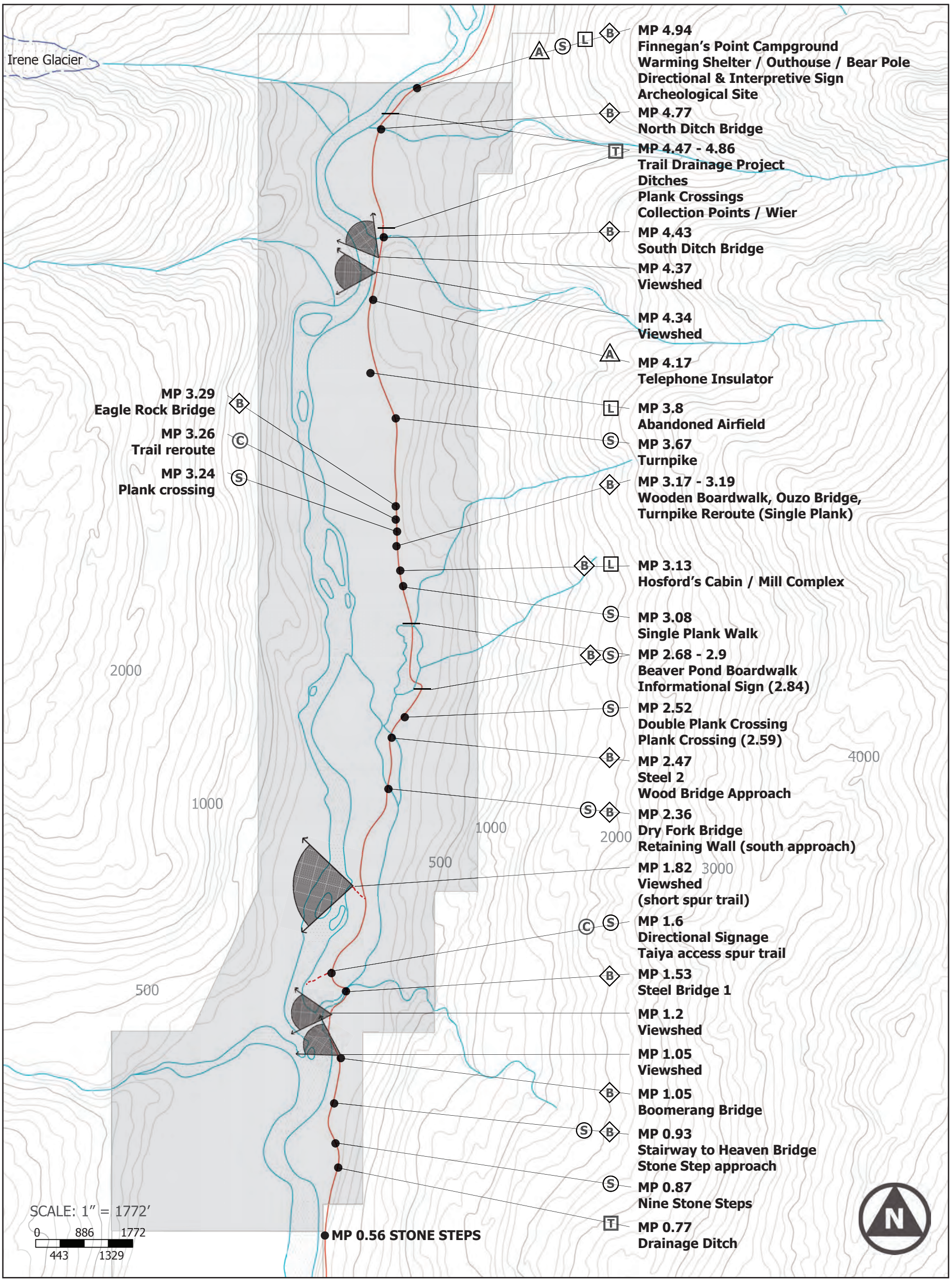




Archeological Site

Hosford Sawmill Complex. A 1948-1956 era mill site which includes the Hosford Cabin and shed (bottom left) as well as the logging road that the trail follows in this area. Pilings where the mill sat, a constructed pond, piles of rotted cut wood to the north of the cabin and a sawdust pile (left) are also part of this complex. Other artifacts and logging road traces exist in the woods away from the trail, including a tin can dump from the 1950s, an outhouse pit, and a late 1930s or early 1940s era Ford sedan. The surrounding second growth vegetation in this lower section of trail (from Finnegan's Point south) is the direct result of the Hosford logging operations.



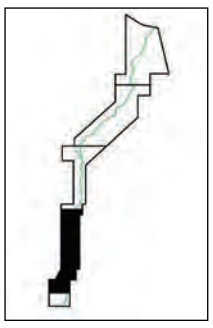


ZONE 2

MILE 0.56 TO MILE 4.96

CHILKOOT TRAIL LANDSCAPE FEATURE MAP

KLONDIKE GOLDRUSH NATIONAL HISTORICAL PARK



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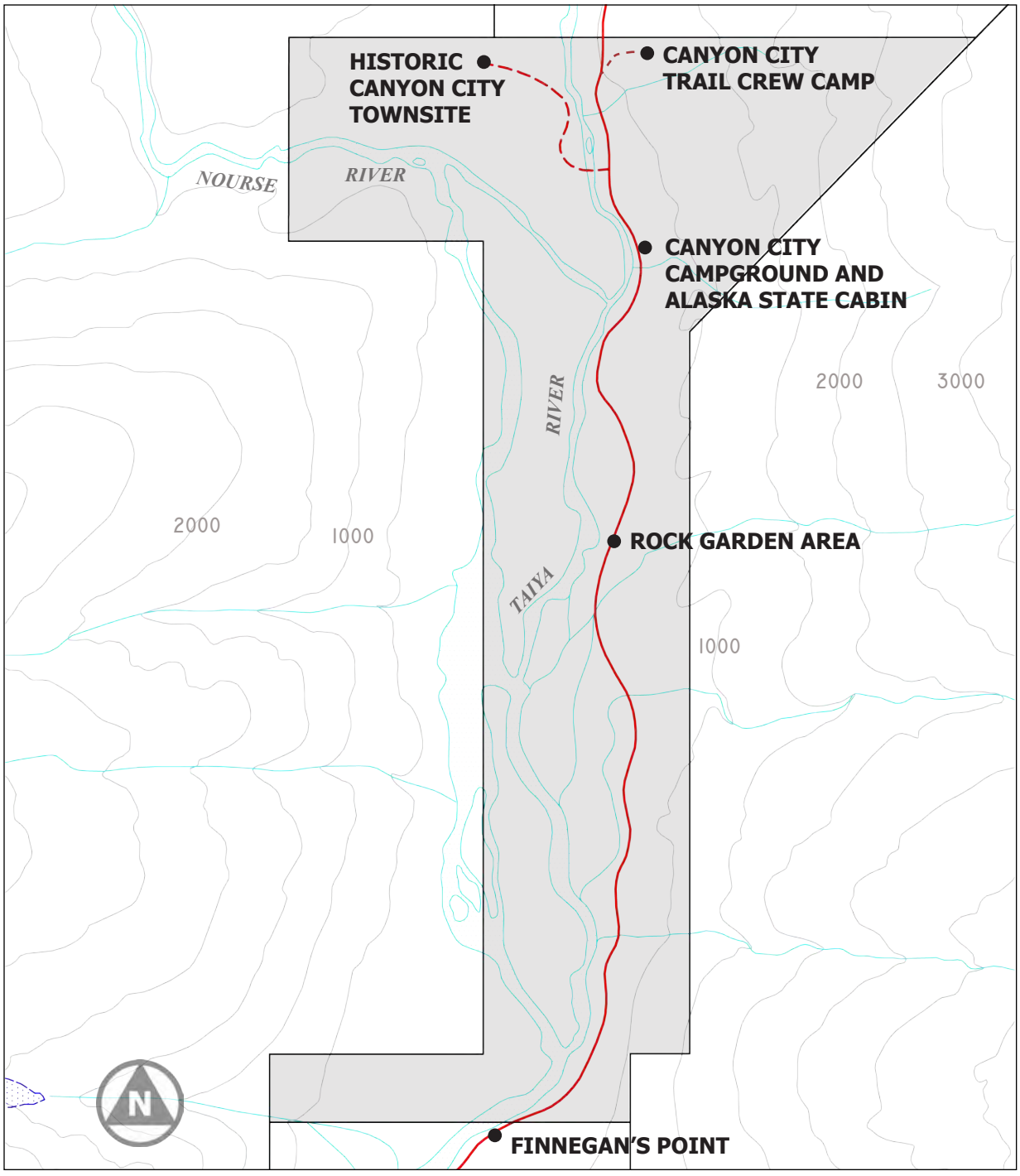
- A archeological feature
- B buildings & structures
- L land use
- S small scale feature
- T topographical feature
- C circulation

viewshed

Chilkoot Trail

rivers / streams

ZONE 3
CHILKOOT TRAIL
Mile - 4.96-8.3

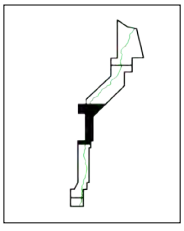


LEGEND:

Chilkoot Trail

spur trails

rivers / streams



ZONE 3

1" = 1760'

CONTOUR INTERVAL
500 FT.

ZONE 3 - Mile 4.96 to Mile 8.3

Introduction

After Finnegan's Point campground the trail climbs the eastern side of the valley due to the fact that it would have to cross the river to take advantage of the floodplain to the west. As a result, the trail through this zone has a much different landscape character than previous zones. Most of zone 3 passes through coniferous forest rather than the riparian forest common to zone 2. The exception is the Rock Garden area (Mile 7.2) where the trail descends into an old floodplain. The Canyon City area at the north end of zone 3 marks the end of the broad lower valley and the beginning of the narrow canyon leading to Sheep Camp and the upper Taiya valley.

The historic Canyon City townsite lies on the west side of the Taiya River at approximately mile 8.0 and is accessible by a spur trail over a cable stay suspension bridge. Historic Canyon City, like the Dyea townsite, is a dense archeological repository of gold-rush era artifacts. Two major archeological surveys were conducted in 1979 and 1990 in order to map the extent of the old town site and identify remaining artifacts, several minor efforts have been undertaken since. Many smaller artifacts are now lost due to theft and river erosion and impacts such as vegetation growth and weathering continue to degrade archeological integrity. Also included in this zone is the trail crew camp, sited on the hillside above Canyon City campground in the early 1980s and built up over the next two decades. The camp boasts a cabin with running water, cooking range, refrigerator, a hot shower, a helicopter pad and camping platforms with some of the best views in the valley. Map 11 provides an overview of zone 3, and Map 12 identifies the landscape features in this zone.

Land Use

The principal land uses in zone 3 are recreation and NPS operations. The Canyon City campground, the trail crew camp and the historic town site are areas located at the northern edge of zone 3. The State of Alaska built a log cabin trail shelter for trail crews and hikers in 1962 at the Canyon City campground. The NPS built a temporary helicopter landing area near the historic town site for emergency use and for ferrying construction equipment up and down the trail. Located on the hillside above the Canyon City campground, the trail crew camp was constructed in the 1980s by the NPS and consists of one cabin, four tent platforms, a helicopter pad, pit toilet and a tool shed.



Land Use

Canyon City campground
Location: Mile 7.76
The Canyon City campground was originally constructed by the State of Alaska in the early 1960s. With the exception of the cabin, the current camping facilities were constructed and periodically updated by the Park Service since 1976.



Land Use

Canyon City spur trail area
Location: Mile 8.0
The spur trail crosses the suspension bridge and proceeds north along the riverbank to the historic town site.

Land Use

Trail crew camp
Location: Mile 8.24
The NPS Trail Crew Camp is located about 1/8th of a mile above the main trail. Its buildings and campsites rest on a series of granite terraces. Originally sited in 1980 and constructed between 1981 and 1987, this is the primary camp for trail maintenance workers.



Land Use

Trail crew camp
Location: Mile 8.24
The helicopter pad at the trail crew camp is used for bringing in supplies and equipment, and emergency evacuations.



Natural Systems and Features

The trail in this zone extends from Finnegan's Point to Canyon City along the eastern side of the valley, ascending and descending the hillsides until the terminus of the lower valley north of the Canyon City campground. Here the valley walls narrow considerably. The swift flowing river and numerous cascades are constrained by the steep canyon walls.

The hydrology of zone 3 appears to be similar to zone 2 in terms of the braided character of the river. However, significant differences exist. The river system in zone 3 consists of two rivers, the Taiya, that runs along the eastern edge of the floodplain, and the Nourse, which is significantly larger and runs along the west. The Nourse joins the lower Taiya above Finnegan's Point near the historic head of canoe navigation. From the head of canoe navigation to the canyon at Canyon City, the river gradient increases and the valley becomes narrower. Geomorphological studies revealed that the river does not meander in this zone as much as it does in zone 2 due to the deposition of large boulders and debris from one or more major flood events in the 1800s. The result has been that no flood events since this time have been powerful enough to dislodge this debris and significantly change the course of the Nourse or Taiya rivers above Finnegan's Point.[1] North of this confluence the Taiya River decreases significantly in terms of volume and flooding is generally not as problematic as in zone 2, although many side tributaries that cross the trail still flood on a seasonal basis. These tributaries can rise suddenly from rainfall or from an increase in glacial runoff, and cause significant trail maintenance problems in zone 3.

The river edges in zone 3 are littered with forest detritus, making trail alignment near the river practically impossible. Much of the trail in zone 3 is therefore routed along the eastern hillside. Active hanging glaciers are present on both sides of the valley in zone 3, but are only visible on the west side due to the orientation of the trail along the eastern edge of the valley. On the hillsides, granite bedrock lies only a few feet, or even a few inches below the topsoil, a condition that contributes to significant windthrow of mature trees during storms.

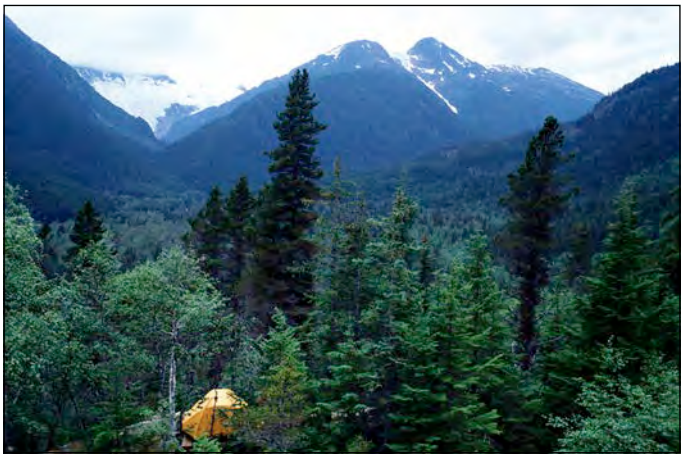
There is a significant presence of wildlife within zone 3. Occasional brown bear sitings occur during salmon season, but are generally rare. Black bear sitings are common, however, especially in the 'Rock Garden' area (mile 6.9 to 7.3), a favorite place of black bears who grub for larvae under the large boulders and rocks. The Rock Garden is strewn with boulders and moraine bars, likely remnants of the catastrophic flood events described above. Early to mid-successional vegetation is reclaiming this area.

The lower Taiya River Valley terminates at the historic Canyon City Town Site, where a narrow canyon begins, heading in a north easterly direction. To the west across the valley floor the Nourse River Valley begins and runs in a north westerly direction. The historic town site lies on a flat outwash plain between the two rivers that flow out of these valleys. A meander of the Nourse River cuts directly across the valley south of this area and joins with the Taiya just below the Canyon City campground. This meander defines the southern boundary of the flat area where the historic town site was located. This is not the main confluence of these two rivers however, as this meander seems to be ephemeral, depending on the seasonal flow variations of the Nourse River.

[1] See Greg Streveler, "Behavior of the Nourse River System and Its' influence on the Taiya Valley", pg. 2, 1995, KLGO Archives.

Natural Systems and Features

View to the west from trail crew camp above Canyon City. The valley to the left with hanging glaciers (north fingers of Irene Glacier) is unnamed; to the right is the Nourse River Valley. The glacier visible in the saddle of two peaks (top center, right) is part of a network of icefields that connect with the Ferebee Glacier.



Natural Systems and Features

Coniferous and deciduous vegetation reclaim the valley floor near the historic Canyon City town site.



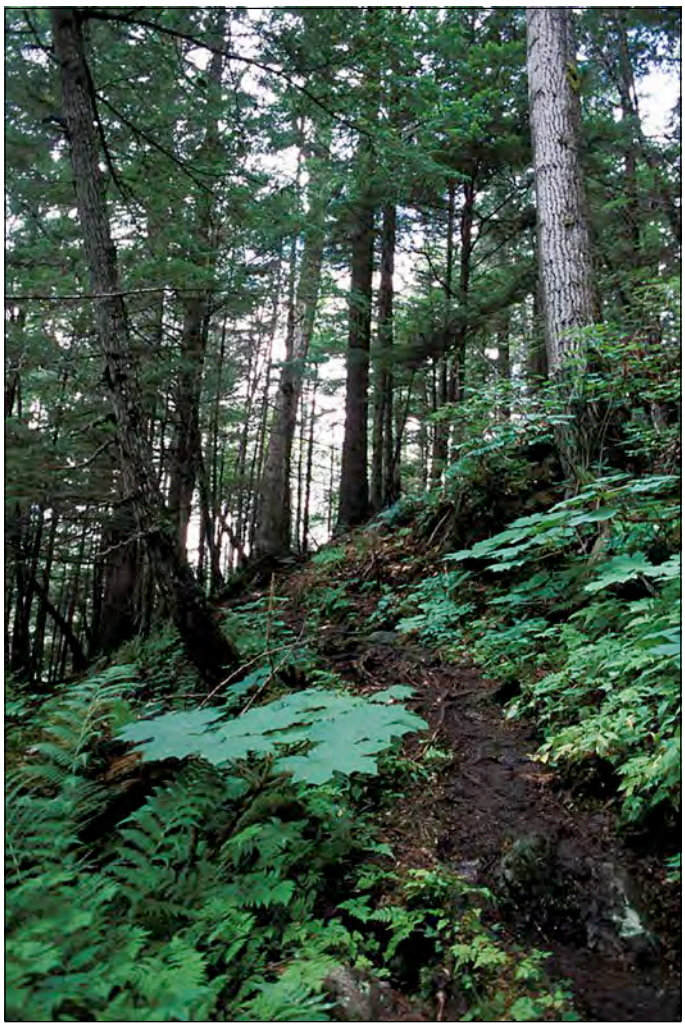
Natural Systems and Features

The combination of granite bedrock (lying just below the organic mat) and strong winds results in significant windthrow in some portions of zone 3.



Topography

From Finnegan's Point to approximately mile 5.2, the trail continues in the floodplain of the Taiya River. At mile 5.2, the trail strikes up the hillside, and largely stays on higher ground until the Canyon City campground. The trail remains in the floodplain from Canyon City campground until the stone steps at mile 8.19. Grades are typically less than ten percent, exceeding that in numerous locations for short distances. The trail tread can be muddy in the lower areas and on the hillsides in the absence of a thick canopy. The tread can often remain dry however, even on a stormy day, where the canopy is thick. The terrain rises in elevation about 200 feet between Finnegan's Point and Canyon City, winding through a variety of natural features including moraines, dense coniferous forest, and riparian/wetland areas. In several locations, the NPS trail crew has constructed drainage ditches to channel water away from the trail.



Topography

The trail often ascends up the steep topography of the hillsides in zone 3, but usually for only short distances.



Topography

Moraine bars near Rock Garden create an undulating topography and a trail tread embedded with medium to large sized boulders.



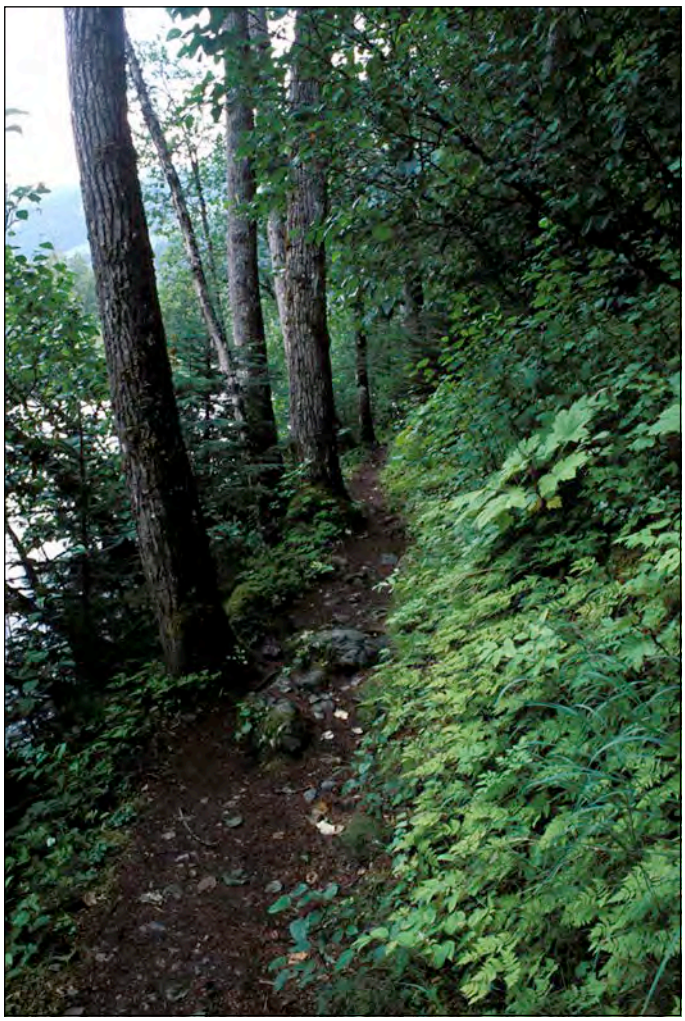
Topography

The trail out of the valley at mile 8.19 is steep and precipitous. The change in elevation is about 200 feet and the distance covered is only about 50 feet, resulting in a forty percent slope.

Vegetation

Zone 3 contains both riparian and coniferous plant communities. A unique vegetation feature between mile 6.9 and 7.3 consists of a lichen and moss covered moraine, where soil composition and prolific lichen and moss communities impede forest regeneration. This section of trail known as the 'Rock Garden' has well-drained and extremely rocky soil.

Throughout zone 3 there are patches of mixed conifer forests that once dominated the lower valley. Hemlock and spruce forests advance down the hillsides into the floodplain, while much of the upper hillside contains dense second growth hemlock stands. On the hillsides the understory shifts with elevation from woody shrubs, ferns, and other herbaceous species to a relatively sparse environment of forest detritus, as well as prolific moss and fungi communities. These rich and colorful fungi appear in late summer and early fall.



Vegetation

Location: Mile 5.1
Description: The trail runs along side the river in the initial reaches of zone 3. At mile 5.4, the trail leaves the rivers edge and elevation increases. Vegetation shifts coincide with this rise in elevation, as the riparian forest changes to predominately conifer species.



Vegetation

Location: Mile 5.4
Description: The dense understory shifts from primarily herbaceous to more woody, shrub-like species as the trail rises from the floodplain.



Vegetation

Location: Various lower elevations
Description: A herbaceous layer of bunchberry *(Cornus canadensis)* and oak fern *(Gymnocarpium dryopteris)* creates a lush green mat in the low light of the coniferous forest floor.



Vegetation

Location: Mile 7.4
Description: Within the coniferous forest, the floor is often covered with a continuous mat of moss, lichen, and fungi. The only shrubs that thrive here are blueberry (*Vaccinium ovalifolium*) and Rusty Menziesia (*Menziesia ferruginea*).



Vegetation

Location: Mile 7.2
Description: The "Rock Garden" consists of an old moraine, now covered with lichens, moss, and young tree growth.



Vegetation

Location: Typical throughout trail corridor, but especially on the hillsides.
Description: Bear bread fungi on young hemlock



Vegetation

Location: Various lower elevations
Description: Mixed understory of highbush cranberry, bunchberry and fly agaric.



Vegetation

Location: Various lower elevations
Description: Button fungi are common in low moist areas with high concentrations of forest detritus.

Circulation

The 36" tread in previous zones is not typical of zone 3, where topography and other limiting factors result in a narrower earthen trail tread approximately 24" wide, augmented in several locations by gravel and sand. In a few limited locations, the trail tread consists of solid granite bedrock; in the Rock Garden earthen tread is embedded with medium to large boulders.

The Canyon City historic town site includes a recreational hiking spur trail constructed in 1962 to provide access to the town site. The spur trail is similar in character and dimensions to the main trail with an approximately 36" tread. Due to the relatively flat topography the spur trail does not have features such as steps, retaining walls, or turnpikes. It ends at the site of a major artifact, the boiler from the Dyea-Klondike Transportation Company (DKT). Visitors disperse from the spur trail to explore the Canyon City town site and to examine remaining artifact clusters creating social trails that negatively impact archeological resources and the historic landscape.



Circulation

Location: Mile 7.3
Description: Trail tread occasionally consists of bare granite where the moss layer has been stripped away.



Circulation

Location: Mile 8.0
Description: Canyon City historic town site spur trail. The spur trail leads across the river to the historic Canyon City archeological site. The spur trail is approximately 1/2 mile in length and terminates at the DKT Boiler.

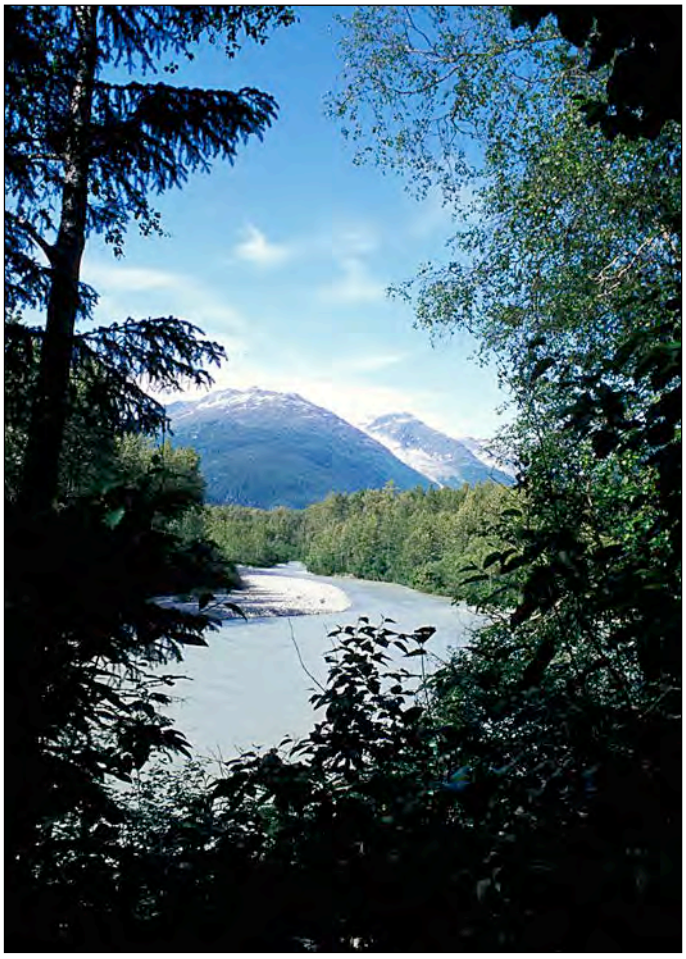
Views and Vistas

Vegetation frames the views and vistas to the river and glaciated valleys that occur within zone 3.



Views and Vistas

Location: Mile 5.11
Description: Naturally occurring viewshed to the southwest toward Irene Glacier.



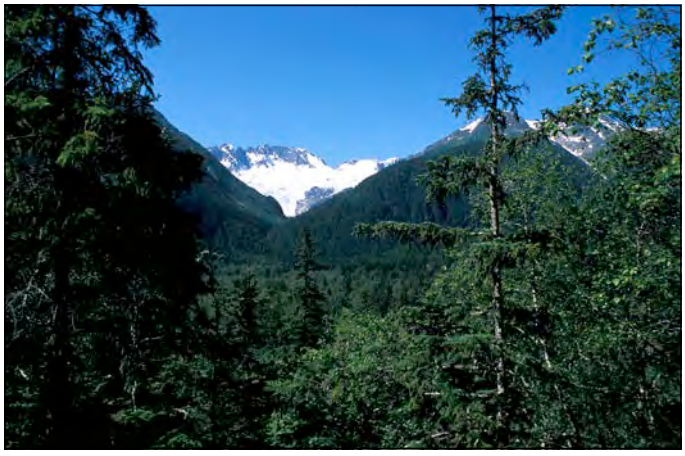
Views and Vistas

Location: Mile 5.18
Description: Naturally occurring views to the north toward Mt. Yeatman and Saussure Glacier.



Views and Vistas

Location: Mile 7.22
Description: Naturally occurring viewshed to the southeast from Rock Garden area toward Mt. Clifford.



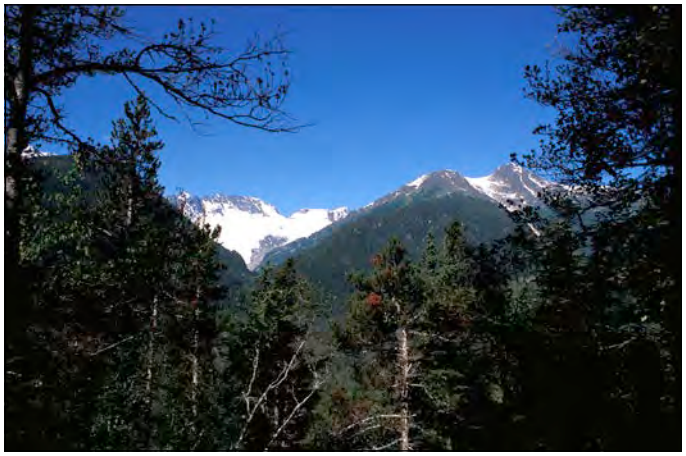
Views and Vistas

Location: Mile 8.24
Description: Naturally occurring views to the west of an unnamed valley and the northern fingers of Irene Glacier.



Views and Vistas

Location: Trail crew camp
Description: Naturally occurring view south from tent platform.



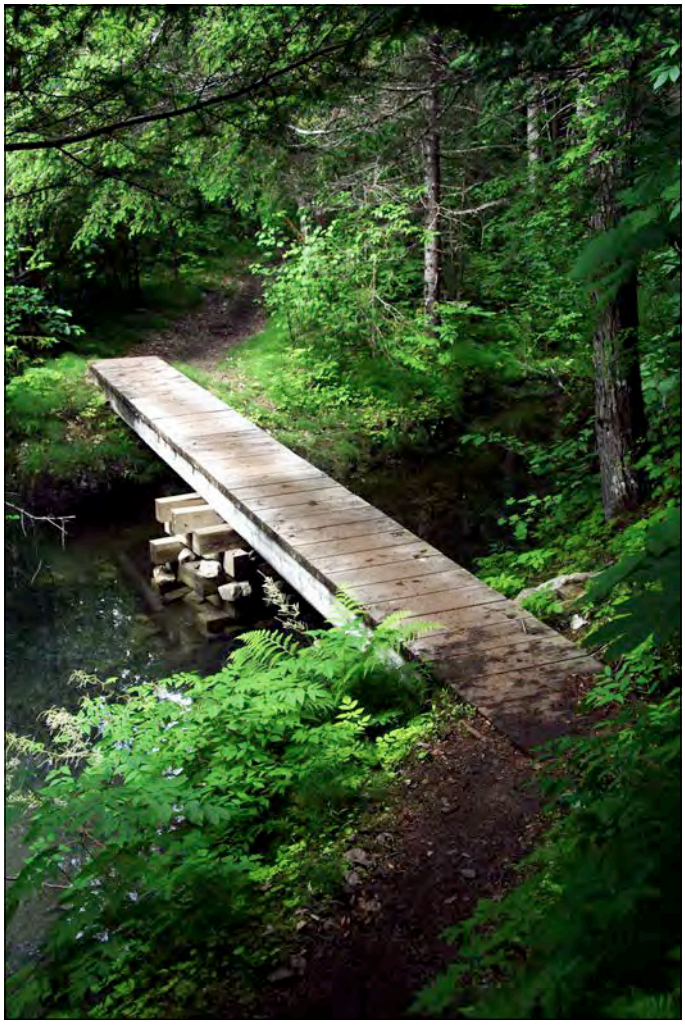
Views and Vistas

Location: Trail crew camp
Description: Constructed vista west to unnamed valley from tent platform.

Buildings and Structures

There are ten major bridge structures in zone 3 due to the numerous stream tributaries flowing into the Taiya River from the eastern slopes of the valley. Most are wood construction in a variety of types: native log, imported glu-lam beam and solid wood (fir) beam. The largest bridge is the cable-stay suspension bridge across the Taiya River to the Canyon City Town Site. Another significant structure found in zone 3 is the log cabin at the Canyon City campground constructed in 1962 by the State of Alaska. Other campground features, such as the bear poles and composting toilets, were added recently.

The trail crew camp above Canyon City campground includes one timber frame cabin constructed in the 1980s, three wooden tent platforms, a pit toilet, a wooden helicopter pad and a timber framed tool shed.



Buildings and Structures

Location: Mile 5.42
Name: Bridge of Dankness
Description: 41' long, 3' wide, overall height, 67 1/2".
Year Constructed: 2004 (replacement)
Notes: Original bridge was constructed in 1983 and consisted of 4"x12" stringers over a central pier with 3"x12" cedar decking and wooden bull rails.



Buildings and Structures

Location: Mile 5.51
Name: Soggy Bottom Bridge
Description: Constructed of 4"x12" Stringers with 3"x12" cedar decking.
Length: 20 feet
Year Constructed: 2000 (replacement in-kind)
Notes: This bridge crosses a shallow, wet area. It replaced a 1980s era bridge called "Log Round" bridge, named after its 1960's era successor which sported two log rounds as decorative features of the hand rail.



Buildings and Structures

Location: Mile 5.71
Name: Freeze Bridge
Description: Modified split-log bridge
Length: 20 feet
Year Constructed: 2002 (replacement)
Notes: Originally built in 1982.



Buildings and Structures

Location: Mile 5.83
Description: Split log construction with flats facing up, supported by pressure treated 4"x6" milled blocks and boulders.
Length: 10 feet
Year Constructed: 2000



Buildings and Structures

Location: Mile 5.86
Description: Split log construction with flats facing up, supported by pressure treated 4x6 milled blocks.
Length: 12 feet
Year Constructed: 2000



Buildings and Structures

Location: Mile 6.01
Name: Double Puncheon
Description: Log retainer backfilled with sand and gravel. There are two puncheon structures at this location, each about 12 feet in length.
Year Constructed: Unknown.



Buildings and Structures

Location: Mile 6.43
Name: 6.5 Mile bridge
Description: Wooden bridge with log stringers and 3"x12" milled cedar decking.
Length: 40 feet
Year Constructed: 2003 (replacement)
Notes: This bridge crosses a very active stream. The previous bridge was originally built in 1982, failed in 1983, then was rebuilt in 1984. This bridge failed in 2003. The current bridge was constructed about 50 yards upstream from the old bridge site.



Buildings and Structures

Location: Mile 6.43
Name: 6.5 Mile Bridge
Description: Alternate view.



Buildings and Structures

Location: Mile 6.82
Name: Rock Garden bridge
Description: Wooden bridge with native log stringers and 3"x12"x4' milled cedar decking.
Length: 40 feet
Year Constructed: 2003 (replacement)
Notes: In kind replacement of original bridge built in 1984.



Buildings and Structures

Location: Mile 7.70
Feature: Stone Staircase
Description: Stone staircase descent at the approach to Canyon City Campground.
Year Constructed: 1980

Buildings and Structures

Location: Mile 7.75
Name: South Canyon City bridge
Description: Wooden bridge with 4x12 beam stringers and 3"x12"x4' milled cedar decking.
Length: 20 feet
Year Constructed: 2001 (replacement)
Notes: original, 1986; replacement, 1995 due to flood.



Buildings and Structures

Location: Mile 7.76
Name: Canyon City campground cabin
Description: Log cabin shelter with fiberglass roof and wood stove.
Year Constructed: 1962



Buildings and Structures

Location: Mile 7.76
Name: Canyon City campground composting toilets.
Description: Composting toilets with wood shelter.
Year Constructed: 2007-2008
Note: The existence of outhouses at this site dates to 1962. The original outhouse shelter was a log structure. This was replaced with a green fiberglass shelter in the early 1980s. The wood shelters pictured here came into use in the 1990s. The transition from pit toilets to composting toilets occurred in the 2007-2008 seasons.





Buildings and Structures

Location: Mile 7.77
Name: North Canyon City bridge
Description: Wooden bridge made with 4”x12” beam stringers and 3”x12”x4’ milled cedar decking.
Length: 20 feet
Year Constructed: 1995 (replacement)
Notes: original, 1982.



Buildings and Structures

Location: Mile 8.0
Name: Canyon City suspension bridge approach
Description: Wooden bridge made with 4”x12” beam stringers and 3”x12”x4’ milled cedar decking.
Length: 15 feet
Year Constructed: 1995 (replacement)
Notes: Original, 1983. 1995 replacement was rebuilt due to flood damage.

Buildings and Structures

Location: Mile 8.0
Name: Canyon City suspension bridge
Description: This bridge is constructed of pressure-treated timbers, steel cable supports, specialized hardware, and cedar decking, and sits on a concrete and rock base
Length: 73 feet
Year Constructed: 1982-1983
Notes: This bridge was severely damaged in a flood in the fall of 1994 and was impassable until repairs were made during the summer of 1995.



Buildings and Structures

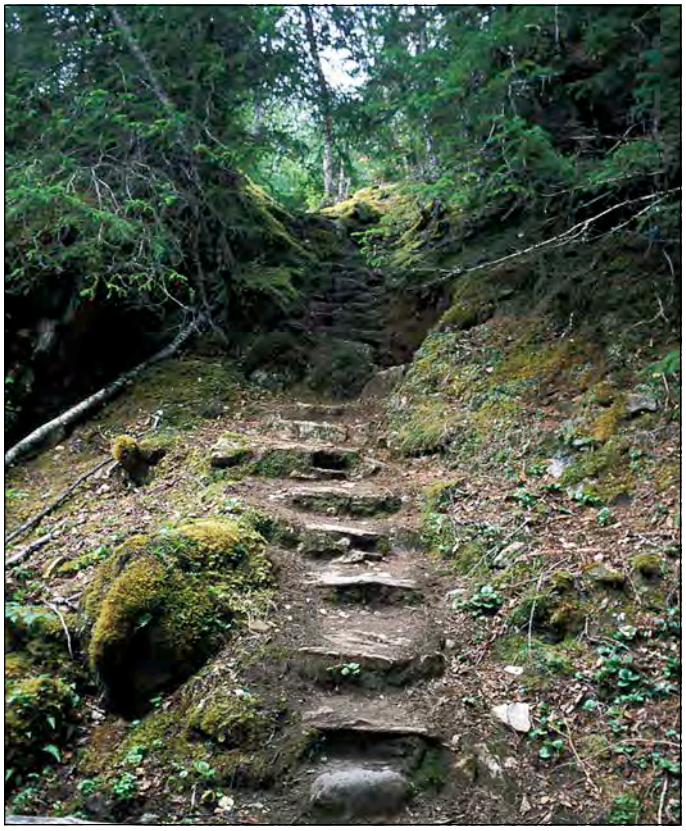
Location: Mile 8.0
Name: Canyon City suspension bridge
Description: alternate view (west)
Year Constructed: 1982-1983



Buildings and Structures

Location: Mile 8.1
Name: Frenchy's Bridge
Description: Constructed of 4"x12" beams connected to a central pier. Decking consists of 3"x12"x4' cedar planks.
Length: 25 feet
Year Constructed: 2000 (replacement)
Notes: Original bridge, 1984.





Buildings and Structures

Location: Mile 8.19
Feature: Stone Staircase
Year Constructed: Original 1982, rebuilt 2001



Buildings and Structures

Location: Mile 8.2
Feature: Stone and log Staircase
Year Constructed: Original 1982, rebuilt 2001

Buildings and Structures

Location: Mile 8.24
Description: Canyon City trail crew cabin
Materials: Wood frame structure, gable roof
Year Constructed: 1981-1987
Note: In 2005 three new support posts were added to the base of the cabin



Buildings and Structures

Location: Mile 8.24
Description: Trail crew equipment shed.
Materials: Wood frame structure, fiberglass roof
Year Constructed: 1990



Buildings and Structures

Location: Mile 8.24
Description: Trail crew pit-toilet
Materials: Wood frame, plywood roof
Year Constructed: 2000 (replacement)





Buildings and Structures

Location: Mile 8.24
Description: The helicopter pad at the trail crew camp is used for bringing in supplies and equipment, and emergency evacuations.
Constructed: 1988



Buildings and Structures

Location: Mile 8.24
Description: Trail Crew Cabin Tent Platform (typical), three (3) wooden platforms total.
Constructed: c. 1985



Buildings and Structures

Location: Mile 8.24
Description: Tent platform constructed of native stone and compacted soil.
Constructed: c. 1985

Small Scale Features

Small scale features in zone 3 include stone and wood stairways, log or stone drainage and retaining structures, signage, interpretive displays, and some campground facilities.



Small Scale Features

Location: Mile 6.5
Feature: Stone steps
Description: Stone steps at north side of old 6.5 mile bridge.
Year Constructed: 1984



Small Scale Features

Location: Mile 6.6
Feature: Stone step drain
Description: Typical stone step drain near Rock Garden area where large river boulders are abundant.
Year Constructed: 1984



Fig. 15

Small Scale Features

Location: Mile 6.7
Feature: Log puncheon crossing
Description: Log stringers backfilled with sand and gravel.
Year Constructed: Unknown



Small Scale Features

Location: Mile 6.8
Feature: Rock Garden Turnpikes
Description: Constructed of cedar 3" x 12" x 12' decking planks and filled with sand, gravel and soil mix.
Year Constructed: 2005



Small Scale Features

Location: Mile 6.82
Feature: Stone approach
Description: Stone and gravel approach (south end) to Rock Garden Bridge.
Year Constructed: 2003 (replacement)



Small Scale Features

Location: Mile 6.82
Feature: Stone approach
Description: Stone and gravel approach (north end) to Rock Garden Bridge.
Year Constructed: 2003 (replacement)



Small Scale Features

Location: Mile 7.6
Feature: Log round steps
Description: Hemlock rounds embedded in earthen trail.
Year Constructed: 1989



Small Scale Features

Location: Mile 7.76
Feature: Directional signage
Description: Routed wood sign
Year Constructed: 1995



Small Scale Features

Location: Mile 7.76
Feature: Canyon City campground bear poles
Description: Galvanized steel tubing.
Year Constructed: 1990 and 2001



Small Scale Features

Location: Mile 8.0
Feature: Directional sign
Description: Routed wood sign
Year Constructed: 1995



Small Scale Features

Location: Mile 8.0
Feature: Interpretive sign
Description: Pre-fabricated steel posts and fiberglass construction (NPS Harpers Ferry style)
Year Installed: Between 1988-1990



Small Scale Features

Location: Mile 8.0
Feature: Bridge abutment and steps on the west side of the Canyon City suspension bridge.
Description: Large boulders embedded in concrete.
Year Constructed: 1982-1983



Small Scale Features

Location: Canyon City spur trail
Feature: Directional sign
Description: Wooden sign with routed and painted lettering.
Year Constructed: Unknown



Small Scale Features

Location: End of Canyon City spur trail
Feature: Interpretive sign
Description: Pre-fabricated steel posts and fiberglass construction (NPS Harpers Ferry style)
Year Constructed: Between 1988-1990



Small Scale Features

Location: Mile 8.0
Feature: Bear Pole
Year Constructed: 2001

Archeological Features

Within zone 3, the entire Canyon City Historic Town Site is a major archeological site. There are also a few additional sites near the main trail that include telephone lines, insulators, and artifact clusters. Within the town site, remaining artifact clusters include pails, horse shoes, bottles, pottery, stoves, and a wide range of other items. In addition, the more substantial remains of the DKT tramway power system including remnants of buildings, the steam boiler and cable can be found within the town site. The area also includes remains of the Dyea to Canyon City wagon road. Theft of artifacts, encroachment by the river, and natural decay continue to endanger the site.



Archeological Features

Location: Canyon City Historic Town Site
Feature: Historic era artifact
Description: Cast iron stove remaining from gold rush era.



Archeological Features

Location: Canyon City Historic Town Site
Feature: Historic era artifact
Description: Steam boiler from DKT tramway.



Archeological Features

Location Canyon City Historic Town Site
Feature: Historic era artifact cluster
Description: Laundry artifacts.



Archeological Features

Location: Canyon City Historic Town Site
Feature: Historic era structural artifact
Description: Unknown structure remnant and various artifacts.



Archeological Features

Location: Canyon City Historic Town Site
Feature: Historic era artifact cluster
Description: Wagon parts.

CANYON CITY
HISTORIC TOWNSITE

ROCK GARDEN
AREA

FINNEGAN'S POINT
CAMPGROUND

1000
500
500
1000
2000
3000

MP 8.24
Viewshed

MP 8.24
Canyon City Trail Crew Camp
Various Buildings and Structures

MP 8.19
Stone Staircase

MP 8.1
Frenchy's Bridge

MP 8.0
Canyon City Suspension Bridge
Bridge Approach, Bear Pole,
CC Historic Site Spur Trail
Signage

MP 7.77
North Canyon City Bridge

MP 7.76
State of Alaska Cabin
Canyon City Campground
Composting toilets (2)
Bear Poles
Directional Signage

MP 7.75
South Canyon City Bridge

MP 7.70
Stone Steps

MP 7.6
Log Round Steps

MP 7.22
Viewshed

MP 6.82
Rock Garden Bridge
Stone Approaches

MP 6.8
Turnpike

MP 6.7
Log Puncheon Crossing

MP 6.6
Stone Step Drain

MP 6.5
Stone Steps

MP 6.43
6.5 Mile Bridge

MP 6.01
Double Puncheon

MP 5.86
Split Log Bridge

MP 5.83
Split Log Bridge

MP 5.71
Freeze Bridge

MP 5.51
Soggy Bottom Bridge

MP 5.42
Bridge of Dankness

MP 5.18
Viewshed

MP 5.11
Viewshed

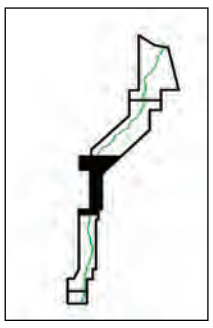
0 660 1320
330 990
SCALE: 1" = 1320'

N

ZONE 3

MILE 4.96 TO MILE 8.3

CHILKOOT TRAIL LANDSCAPE FEATURE MAP
KLONDIKE GOLDRUSH NATIONAL HISTORICAL PARK



LEGEND:

- archeological feature
- buildings & structures
- small scale feature

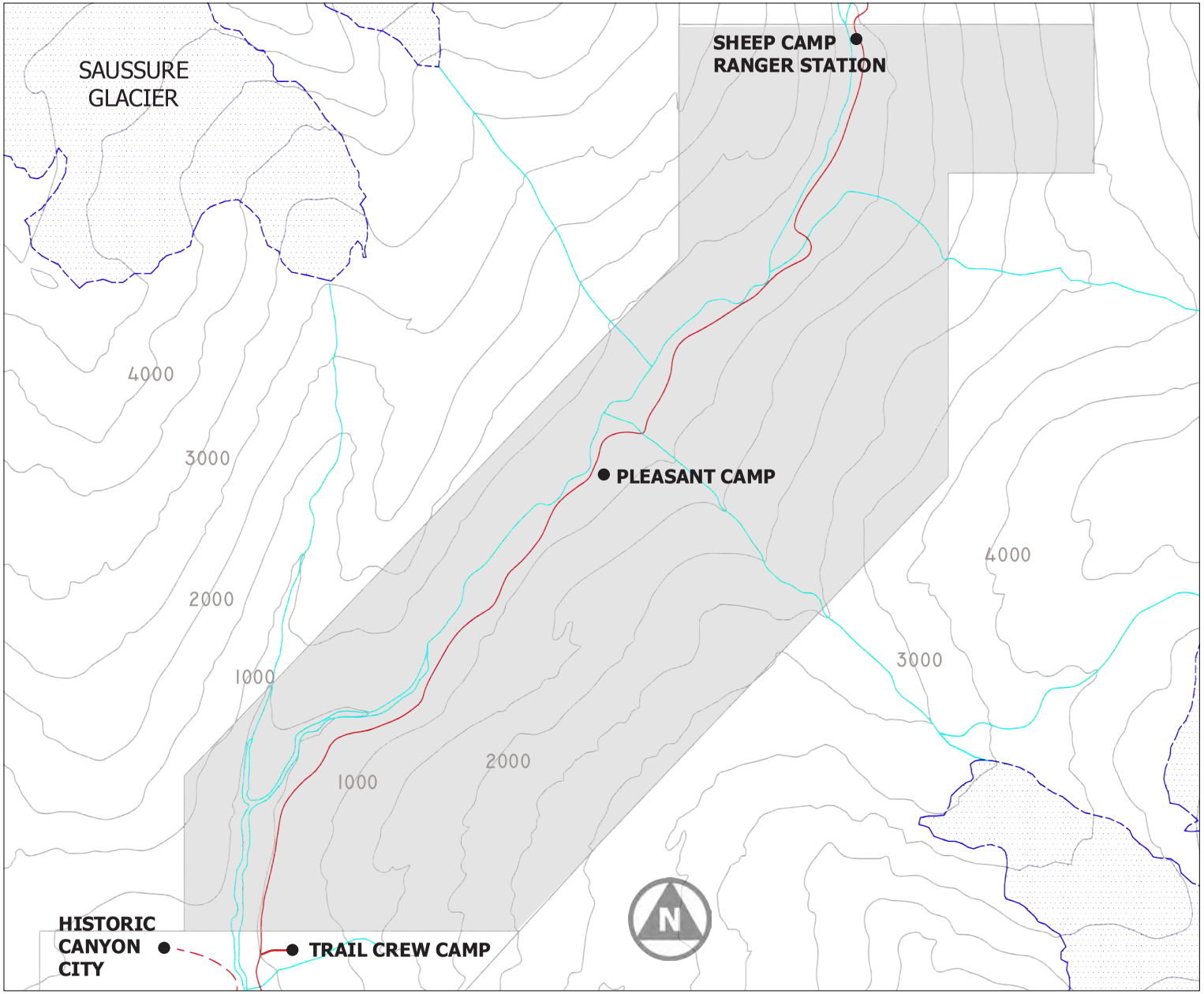
viewshed

Chilkoot Trail

rivers / streams

ZONE 4
CHILKOOT TRAIL
Mile - 8.3-12.68

ZONE 4



1″ = 2650′

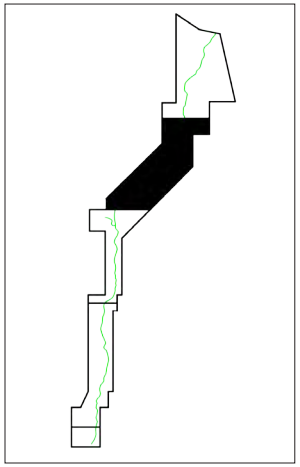
CONTOUR INTERVAL 500 FT.

LEGEND:

Chilkoot Trail

rivers / streams

spur trails



Zone 4 - Mile 8.3 to 12.68

Introduction

Zone 4 includes the trail between mile 8.3 and a point just beyond the Sheep Camp Ranger Station (mile 12.68). The trail from mile 8.3 to the historic Camp Pleasant river crossing (mile 10.33) runs high above the narrow canyon that seperates the lower and upper Taiya River Valley. From this point to the Sheep Camp Ranger Station the trail meanders through the floodplain and along the eastern slopes of the upper Taiya River Valley. Much of the trail above the canyon until mile 10.33 coincides with the historic gold rush route. The major features of this zone include the Pleasant Camp campground, a major river crossing at mile 10.85 over a suspension bridge, a major trail reroute (11.7) around the former Sheep Camp campground (flooded 2002) and the Sheep Camp Ranger Station at Mile 12.66. Map 13 identifies the geographic boundaries of zone 4 and major features of interest within this zone. Maps 14 and 15 identify the landscape features of zone 4.

Land Use

Land use in zone 4 is limited to recreational and administrative uses. There is one campground, Pleasant Camp, and one administrative facility (Sheep Camp Ranger Station). Administrative areas, campgrounds, shelters, and bridges all represent part of the recreational support activities administered by the NPS. The Pleasant Camp campground was originally constructed in the late 1970s at mile 10.43 but re-sited in 1991-1992 due to persistent flooding of the site. The original Ranger facility was constructed in the late 1970s and consisted of two A-frame tent structures. The Ranger facility was later rebuilt in the same location between 1987-1990.



Land Use

Pleasant Camp campground
Location: Mile 10.65
Pleasant Camp campground is near the river in the floodplain and can accomodate approximately 10 to 15 campers.



Land Use

Sheep Camp Ranger Station
Trail Crew Camp North
Location: Mile 12.66
The Sheep Camp Ranger Station is a base for ranger and trail crew activities in the upper Taiya River Valley.

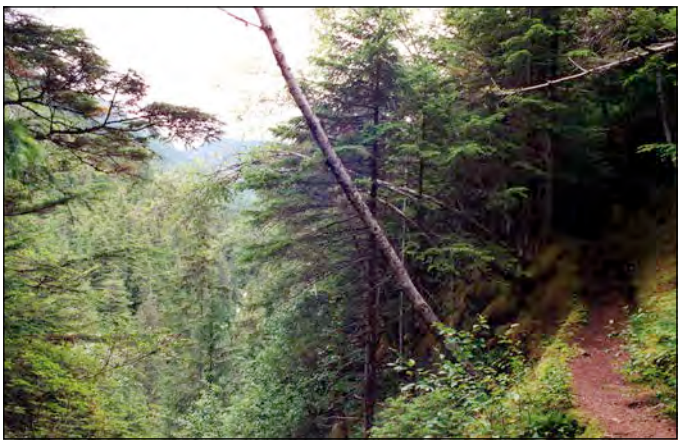


Land Use

Helicopter Pad
Location: Mile 12.66
The helicopter pad at the Sheep Camp Ranger Station is used for bringing in supplies and equipment, and emergency evacuations.

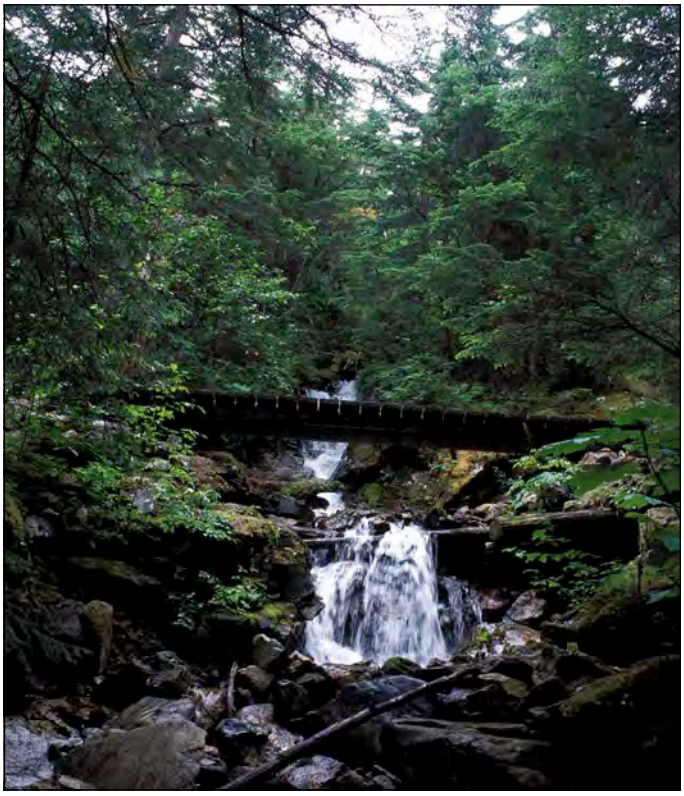
Natural Systems and Features

The natural landform and physiographic features of zone 4 have had a significant impact on the spatial organization and development of the Chilkoot Trail. This zone is differentiated from zones 1, 2 and 3 by topography, vegetative cover, avalanche impacted sites, and stream concentrations. The dominant landforms of this zone include the steep walls and precipitous slopes of the Taiya River Canyon, and the flood plane from historic Camp Pleasant to Sheep Camp Ranger Station. Glacial landforms dictate the kinds and distributions of upland, wetland, and aquatic habitats in zone 4. The canyon and its steep terrain, the Taiya River and its tributaries as well as the flood plane have all contributed to contemporary land use patterns in zone 4. Avalanches, flooding and recreational use continue to shape and define the topography, hydrology and vegetative cover of the landscape.



Natural Systems and Features:

Location: Mile 9.27
From Canyon City the trail climbs steadily in elevation and for the next two miles traverses the hillside above the canyon. Precipitous slopes and dense coniferous vegetation are typical natural features of the southern section of zone 4.



Natural Systems and Features

Location: Mile 9.74
Many small streams cascade down the slope of the eastern valley and then drop suddenly down into the canyon below. Trail design and alignment throughout this area is largely determined by these natural features.



Natural Systems and Features

Location: Mile 10.43
Frequent flooding is common in the upper Taiya floodplain. Sandbars and denuded vegetation are indicative of such flooding. Pictured here in June of 2002, is the original location of Pleasant Camp campground (moved to its current location in 1992).



Natural Systems and Features

Location: Mile 10.43
Flooding of the site pictured above two months later in August 2002.



Natural Systems and Features

Location: Mile 10.9
The behavior of the Taiya River in the upper floodplain is similar to that of the lower valley. However, the flood plain is narrower and the flow constricted. Tree detritus often causes log jams, redirecting river flow. Trail sections are re-routed often as a result of the meandering river.



Natural Systems and Features

Location: Mile 11.7 2
Section of trail south of old Sheep Camp site flooded in August 2002.



Natural Systems and Features

Location: Mile 11.75
Description: In August 2002, Sheep Camp campground experienced a major flood event. The decision to move the camp was made shortly after this event, and Sheep Camp was moved to the State of Alaska cabin site at Mile 12.81.

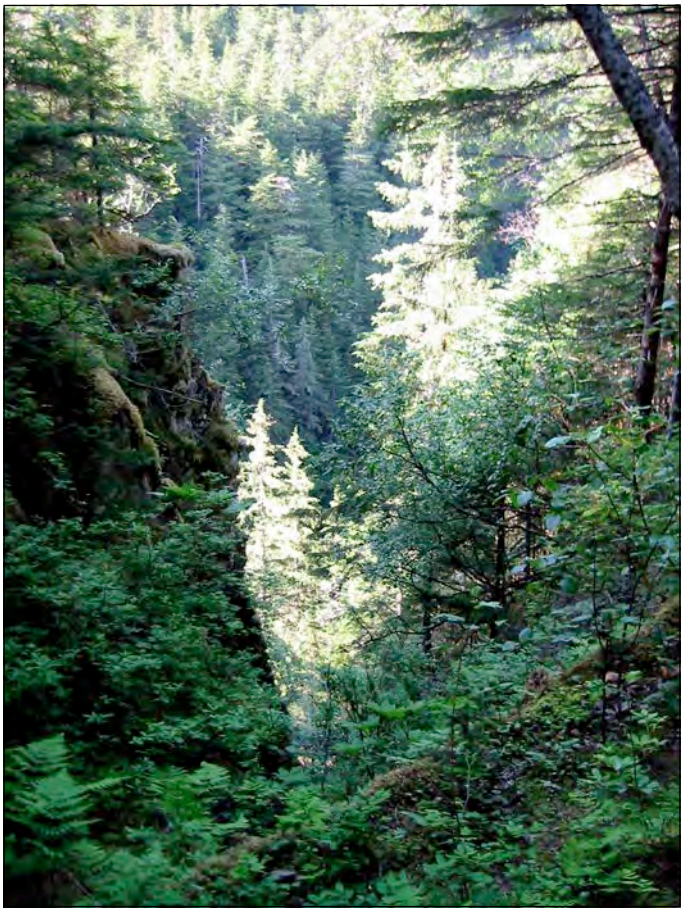


Natural Systems and Features

Location: Mile 12.5
Shear granite cliffs and topped cottonwoods, clear evidence of avalanche danger between old Sheep Camp campground and the Ranger Station.

Topography

At mile 8.3, the trail elevation is about 600 feet above sea level, and traverses the eastern side of the Taiya River Canyon, descending and ascending the side ravines of the hillside until it descends into the upper floodplain near Pleasant Camp campground. The forest canopy through the canyon is dense, and the side slope is often 20 to 30 percent. The northern portion of zone 4 (Pleasant Camp to Sheep Camp Ranger Station) is best characterized as a U-shaped glacial floodplain with a broken canopy of second-growth riparian forest. Grades in this area are relatively low (5-10%), and trail inundation from the river is common. Drainage ditches, water bars, rock steps, retaining walls, turnpikes and log corduroy were constructed to channel water away from the trail tread and reduce erosion, as well as provide safe passage for hikers. There is a history of flood events in zone 4, which has resulted in numerous trail re-alignments and relocations of Sheep Camp campground.



Topography

View into the canyon from a point where the trail comes close to one of the many steep, side ravines through this section of zone 4



Topography

The side slope of the trail bed is often 20 to 30 percent; drainage and trail erosion are therefore significant maintenance factors in zone 4.



Topography

View of a bend in the river. The trail past Pleasant Camp is largely in the floodplain and remains relatively flat. In many places it runs alongside the river.

Vegetation

From mile 8.3 to 10.33 the trail traverses the hillside above the Taiya River Canyon. Steep ravines, rock outcroppings, knolls, numerous small stream bodies, and a dense coniferous forest that is primarily Sitka spruce (*Picea sitchensis*) and Western hemlock (*Tsuga heterophylla*), dominate this section of zone 4. The vegetation of this section of zone 4 is similar to the hillsides in zone 2 and 3, but the terrain is steeper. The vegetation of the northern portion of zone 4 is predominately riparian, consisting of cottonwood (*Populus balsamifera*), birch (*Betula papyrifera*), and several species of willow (*Salix*) and alder (*Alnus*). However, near Pleasant Camp significant stands of Sitka spruce and Western hemlock occur, and the forest around the old Sheep Camp location could be considered mixed conifer/deciduous. The canopy is broken along the floodplain, and dense thickets of alder and willow occur along the riverbanks and the numerous side streams that cascade down the mountainsides.



Vegetation

Dense second growth hemlock stands are typical on the hillsides above the canyon (mile 8.3-10.3). The understory is relatively sparse due to low levels of sunlight and precipitation. Only a layer of moss prevails with a few hardy shrubs. Menzies tree moss *(Leucolepis acanthoneuron)* and tangle moss *(Heterocladium procurrens)* are the dominant moss species. Rusty menziesia *(Menziesia ferruginea)* is one of the few shrubs that flourish in these low light, relatively dry conditions. Fungi is also present in late summer and early fall.



Vegetation

In canopy openings, devils club *(Oplopanax horridius)*, dwarf dogwood *(Cornus canadensis)* and other moisture-dependent species take advantage of the sunlight and precipitation.



Vegetation

At the old Sheep Camp campground (mile 12.0), the forest changes to mixed conifer/deciduous with a dense understory. Typical species include Black cottonwood *(Populus balsamifera)*,Western hemlock *(Tusga heterophylla)*, Sitka spruce *(Picea sitchensis),* paper birch *(Betula papyrifera)*, devils club *(Oploplanax horridus)*, oak fern *(Gymnocarpium dryopteris)*, bracken fern *(Pteridium aquilinum)*, goat's beard *(Arunus dioicus)*, kneeling angelica *(Angelica genuflexa)* and cow parsnip *(Heracleum lanatum)*.



Vegetation

Goat's beard *(Arunus dioicus)* and Black cottonwood *(Populus Trichocarpa)* grow in edge habitats along the upper Taiya River.



Vegetation

Oval leaf blueberry *(Vaccinium ovalifolium)* grows in moist coniferous forests and open areas, especially along stream and river banks. It is Alaska's most common *Vaccinium* species.

Circulation:

The trail alignment in zone 4 intersects with and approximates the historic summer trail alignment from mile 8.62 to 10.33; from that point, the trail follows the 1960s and 1980s alignment. At mile 8.62, a historic trace intersects with the recreational trail. The trace is visible from the trail and appears to ascend from the river-side in the canyon below, running in a northeasterly direction, switching back once or twice up the ravine. This area is less steep than most of the canyon area, which typically has sheer cliffs, or very steep ravines, with heights ranging anywhere from 50 to 300 feet above the river below.

The trail tread through the canyon section of zone 4 consists of mineral soil on bedrock with several sites where the trail crosses bare bedrock. Here the trail requires extensive maintenance on the tread and side slope to prevent erosion that is a direct result of run-off during storm events and numerous stream crossings. The tread north of Pleasant Camp is characterized by mineral soil and detritus augmented with sand and gravel. Stone steps, retaining walls, water bars, plank crossings, turnpikes, stone culverts, bridges, and drainage ditches are used to prevent erosion and insure visitor safety. Typical tread width is 36", although the trail corridor seems much wider in areas where brushing occurs.

Trail character changes significantly after mile 12.0, as the grades level out and the trail enters the floodplain of the upper Taiya valley. Brushing up to four feet on each side of the trail and construction of sightlines at points along the trail in order to prevent bear-human interaction are common from mile 12.0 to the Ranger station.



Circulation:

Location: Mile 8.62
Description: View north toward the river where the historic trail intersects with the modern hiking trail. The trace runs down the slope towards the bottom left of the image (See also "Archeological Features").



Circulation

Location: Mile 8.95
Description: The trail often runs over granite bedrock, pictured here at 'Nine Mile Hill'.



Circulation

Location: Mile 10.87
Description: After Pleasant Camp the trail levels off and the tread widens. Much of the trail is in the floodplain after Pleasant Camp, although in several locations it ascends the hillside for short distances to avoid the river.



Circulation

Location: Mile 11.42
Description: Looking south, on the right is evidence of the State of Alaska era trail, washed out by the meandering upper Taiya River. On the left is the new trail, rerouted to avoid the embankment. Trail rerouting because of river encroachment is typical in zone 4.
Reroute completed: 1995



Circulation

Location: Mile 11.51
Description: Looking south, on the right is evidence of the State of Alaska era trail, washed out by the meandering of the upper Taiya River. On the left is the new trail, rerouted to avoid the river.
Reroute completed: 2002



Circulation

Location: Mile 11.7
Description: Looking north, on the left is the former location of Zig-Zag bridge (moved to Mile 11.97). Center and right is the new trail alignment. Trail rerouting due to river encroachment is a common occurrence in zone 4.
Reroute completed: 2006



Circulation

Location: Mile 12.3
Description: From old Sheep Camp campground to the Ranger Station, site-lines become critical to avoid human-bear interactions. The trail tread is blazed through dense groundcover to a width of approximately 3 feet and the edges and overstory are cleared every season to a width of approximately 8 feet.

Views and Vistas

Historically, public access to views and constructed vistas in zone 4 of the Chilkoot Trail was not a primary factor in the alignment of the trial. Nevertheless many of the views that were in evidence during the period of significance (1897-1899) remain today, but are typically obscured by vegetation. Constructed vistas in zone 4 were carefully planned and sited along the trail in the 1980s-1990s, capturing vantage points for viewing the geologic features and surrounding landscape of the Taiya River Valley. Irene Glacier, Taiya River Canyon, Ten-Mile waterfall, historic Camp Pleasant, and the upper Taiya River Valley are just a few of these vistas. Currently many of these constructed vistas are obscured by vegetation and require reassessment. Generally, views and vistas are limited in zone 4 due to dense vegetation, although the topography affords some of the best views in the valley. Low, persistent, hanging clouds also obscure potential views to the mountains and glaciers in this zone.



Views and Vistas

Location: Mile 8.83
Description: Constructed vista, now obscured, north to Saussure Glacier and canyon. Vista is at the end of short spur trail.



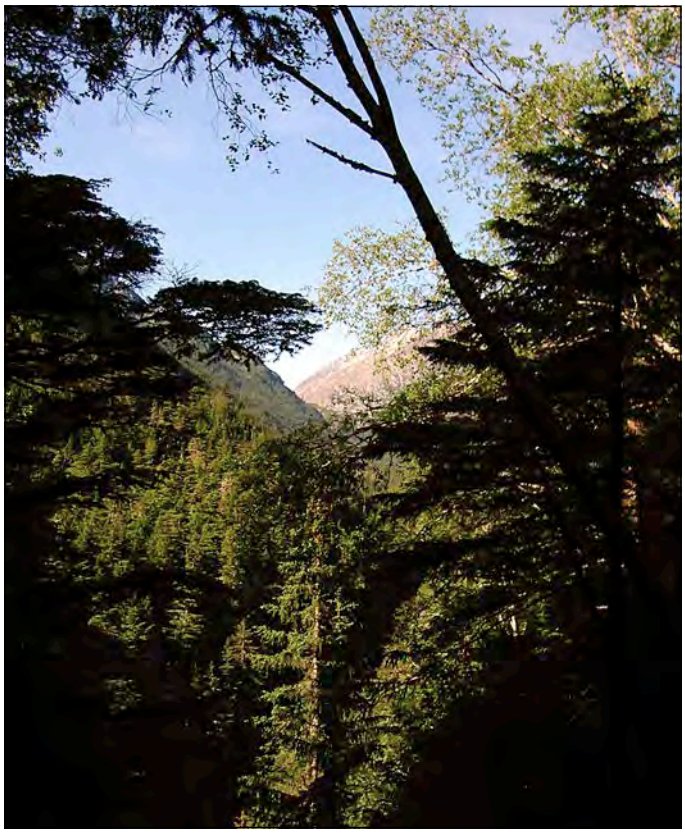
Views and Vistas

Location: Mile 8.94
Description: Naturally occurring view south west from rock outcropping (Nine Mile Hill) looking down the lower Taiya River Valley towards an un-named valley and the northern fingers of Irene Glacier.



Views and Vistas

Location: Mile 9.27
Description: Naturally occurring view north from cliff overlooking canyon. This lookout is at the end of a short spur trail off the main trail. The view from the main trail is obscured by vegetation.



Views and Vistas

Location: Mile 9.31
Description: Constructed vista north from top of a steep ravine, now obscured by vegetation.



Views and Vistas

Location: Mile 10.43
Description: Naturally occurring view northeast to the upper Taiya valley and Sheep Camp area.



Views and Vistas

Location: Mile 12.56
Description: Naturally occurring vista. In 1996 an avalanche cleared brush and cottonwood to reveal this vista of the waterfall and eastern cliffs of the valley.

Buildings and Structures

Buildings and structures located in zone 4 include bridges, stone and log staircases, campground structures, and NPS facility structures. The Sheep Camp Ranger Station complex located at mile 12.66 consists of two rectangular buildings sited between the Chilkoot Trail and the upper Taiya River. The larger structure is the Ranger Station, the smaller a trail crew equipment shed. There is also a helicopter pad next to the river and a pit toilet at this site. Pleasant Camp Camground has a warming shelter and a pit toilet. There are nine bridge structures built along the trail corridor in zone 4, and two major stone and log staircase structures.



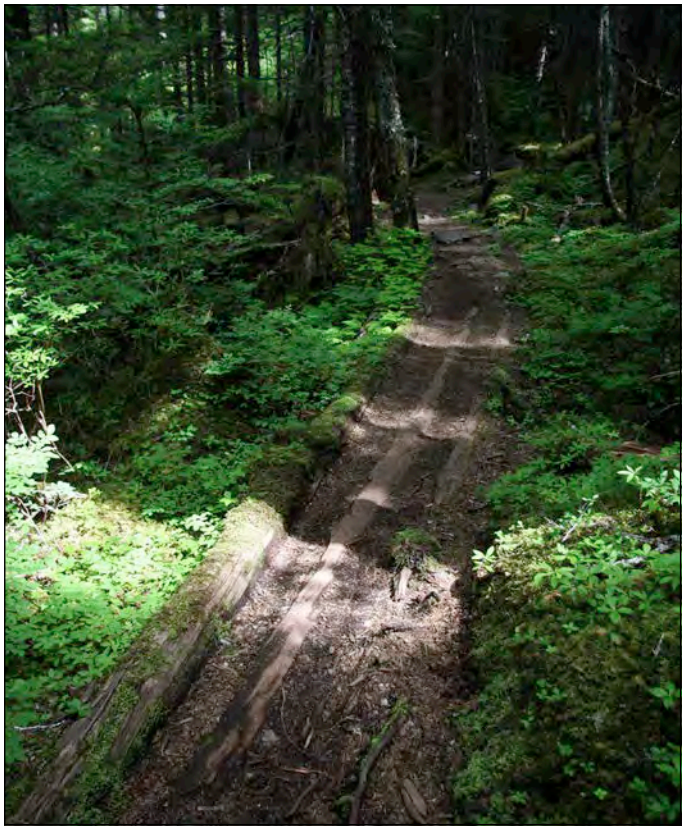
Buildings and Structures

Location: Mile 8.58
Description: Stone and log staircase, retaining wall. Native stone, logs and fill.
Year Constructed: 1997



Buildings and Structures

Location: Mile 8.7
Name: Pole bridge
Description: 10 feet long, three logs with top milled flat.
Year Constructed: 2005 (replacement)
Note: The original bridge, built from native timber with a sand and gravel filled deck, was constructed in 1984.



Buildings and Structures

Location: Mile 9.36
Description: Log retaining wall and corduroy.
Native timber, fill.
Year Constructed: 1984



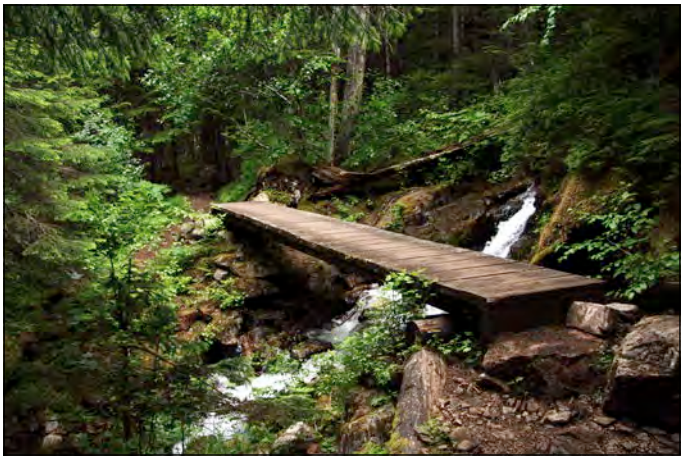
Buildings and Structures

Location: Mile 9.39
Description: Log retaining wall and stone tread.
Native timber, stone, fill.
Year Constructed: 1984



Buildings and Structures

Location: Mile 9.74
Description: Retaining wall approach. Native timber, stone and fill.
Year Constructed: 1995
Notes: Extensive stone abutments and retaining walls are used at this site to stabilize the steep slope. Boulder steps are used on north and south approaches (see small scale features).



Buildings and Structures

Location: Mile 9.74
Name: Ten Mile bridge (aka. 'Waterfall' bridge)
Description: Log stringers (Sitka spruce) milled onsite, decked with 3"x12"x4' cedar.
Year Constructed: 1992 (replacement)
Notes: Originally constructed in 1979.



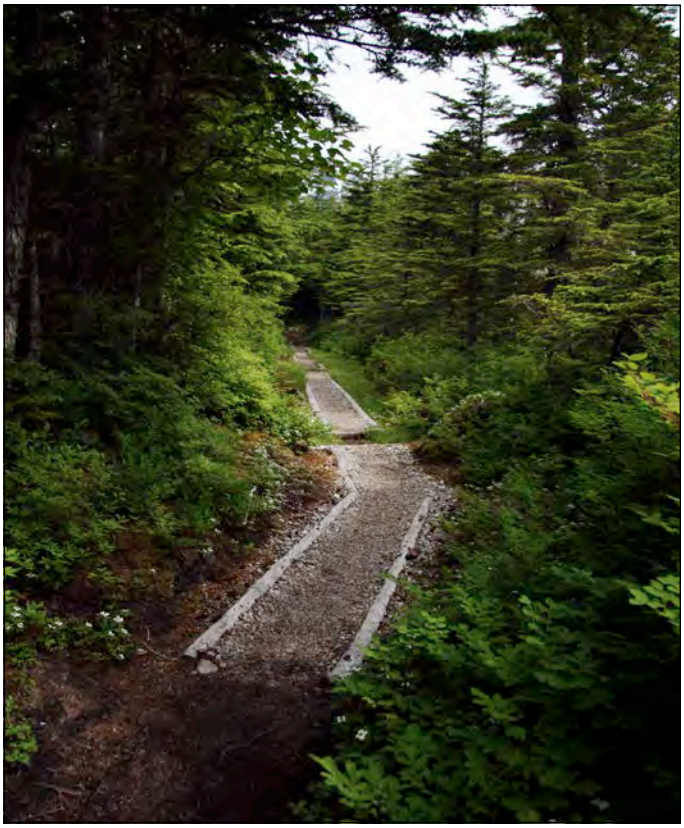
Buildings and Structures

Location: Mile 9.8
Description: Corduroy bridge. 18 feet long, native timber, fill.
Year Constructed: 2005 (replacement)
Notes: Original bridge constructed in 1984



Buildings and Structures

Location: Mile 10.18
Description: Black Bog Turnpike Complex 1. Native logs and gravel fill. Split Log bridge, and turnpikes, approx. 50 feet in length
Year Constructed: 2000
Notes: The Black Bog Turnpike Complex is considered a structure because of its large scale.



Buildings and Structures

Location: Mile 10.22
Description: Black Bog Turnpike Complex 2.
Native logs and stone fill, approx. 150 feet in length
Year Constructed: 2000
Notes: Black Bog Turnpike Complex 2 consists of three 40 foot turnpikes with drains between each segment. It is considered a structure because of its large scale.



Buildings and Structures

Location: Mile 10.3
Description: Log Puncheon bridge and turnpike.
Native log bridge with sand and gravel filled deck.
Native timber and gravel turnpike.
Year Constructed: 1980s



Buildings and Structures

Location: Mile 10.31
Description: Log puncheon bridge. Native log bridge with sand and gravel-filled deck
Year Constructed: 1980s



Buildings and Structures

Location: Mile 10.36
Description: Log retaining wall, stone and log staircase. Native timber, stones, fill.
Year Constructed: 1996



Buildings and Structures

Location: Mile 10.36
Description: Stone and log staircase. Native timber, stones, fill.
Year Constructed: 1996



Buildings and Structures

Location: Mile 10.65
Name: Pleasant Camp bridge
Description: Log puncheon, earthen tread.
Year Constructed: 1996
Notes: This bridge is on a spur trail leading to the river from the main trail. It crosses an ephemeral side stream near the Pleasant Camp warming shelter.



Buildings and Structures

Location: Mile 10.65
Description: Pleasant Camp Shelter. Wooden tent frame with canvas cover. Shelter has wooden floors, cast iron stove.
Year Constructed: 1993
Notes: Pleasant Camp shelter was erected at old Pleasant Camp site in 1993 and then moved in 1996 when the camp was relocated.



Buildings and Structures

Location: Mile 10.65
Description: Pit Toilet. Milled wood frame structure with plywood siding and galvanized metal roof.
Year Constructed: 1996



Buildings and Structures

Location: Mile 10.85
Description: Suspension bridge. Steel 2" inch main cables, with 12"x12"x30' treated towers and 2"x4"x3' treated decking.
Year Constructed: 1982; replaced multiple bridge structures from the 1970s.
Note: In 2004 the top main cables were tensioned, and in 2005, wood protector was applied to the bridge and organic build-up was removed.



Buildings and Structures

Location: Mile 10.85
Description: Cobble bank retainer. River rock and wire mesh.
Year Constructed: 1995



Buildings and Structures

Location: Mile 11.03
Name: Shovel and Broom bridge
Description: Log stringers and sills. 3”x12”x3’ milled cedar decking.
Year Constructed: 1993



Buildings and Structures

Location: Mile 11.97
Name: Zig-Zag bridge ‘06
Description: 60 feet
Year Constructed: 2006
Notes: Original bridge built in 1983 at mile 11.7. The piers were undercut during the August flood (2002) and were stabilized in July 2003. Bridge relocated in 2006.



Buildings and Structures

Location: Mile 12.09
Name: Old Sheep Camp bridge
Description: 22 foot bridge constructed with log stringers milled onsite, 3”x12”x3’ cedar decking and 6”x6”x3’ treated lumber used for sills.
Year Constructed: 1994
Notes: Rock steps used for both approaches, rocks are also used to stablize sills.



Buildings and Structures

Location: Mile 12.40
Name: Avalanche bridge
Description: 41 ft. wooden bridge constructed with (4) 6”x12”x20’ cedar stringers, and three courses of cedar decking. This design, with its linear decking, is not typical of most bridges on the trail.
Year Constructed: 2002 (replacement)
Notes: Originaly constructed in 1987.



Buildings and Structures

Location: Mile 12.66
Description: Sheep Camp Ranger Station. Wooden framed structure with gable roof, clad with metal roofing panels, board and batten siding with composite underlayment; solar panel sited with a southern orientation.
Year Constructed: 1989-1990



Buildings and Structures

Location: Mile 12.66
Description: Trail Crew and Ranger Supply Shed. Wooden framed structure with metal roofing panels, board and batten siding with composite underlayment, water holding tank, sited with a western orientation.
Year Constructed: 1992



Buildings and Structures

Location: Mile 12.66
Description: Helicopter Pad. Wooden framed structure with 4”x6”x16’ treated joists and rim joists, and 2”x6”x16’ treated decking.
Year Constructed: 1994
Notes: Due to its proximity to the river, the pad has to be secured during high water events.



Buildings and Structures

Location: Mile 12.66
Description: Pit Toilet. Wooden, simple framed structure, clad in plywood with half-walls; shed roof with metal roofing panels.
Year Constructed: 2002 (replacement)
Note: Pit Toilet was relocated between 1994-1995

Small Scale Features

Small scale features found in zone 4 include signs (wooden and metal), stone steps, bear poles, bridge approaches and abutments, benches, stone and log steps, and dry laid stone retaining walls. Features such as stone step drains and corduroy are noted as "typical" due to the frequency of these features in zone 4.



Small Scale Features

Location: Mile 8.3
Feature: Log Step Drain (typical)
Description: Native logs and fill
Year Constructed: 1960s
Notes: Log step drains also found at Mile 9.92, 9.95.



Small Scale Features

Location: Mile 8.84
Feature: Stone Step drain (typical)
Description: Native stone
Year Constructed: 1997
Notes: Type 1; Minor stone step drain with drainage ditch, 6" to 8" depth, 1' to 2' width. No significant rock abutments or approaches. Most common type found in zone 4.



Small Scale Features

Location: Mile 8.96
Feature: Puncheon drain
Description: Native logs and fill
Year Constructed: 1960s
Notes: 8' logs with sand and gravel filled deck



Small Scale Features

Location: Mile 9.32
Feature: Stone retaining wall and drain
Description: Native stone
Year Constructed: 1987



Small Scale Features

Location: Mile 9.74
Feature: Stone approach
Description: Native stone and fill
Year Constructed: 1987



Small Scale Features

Location: Mile 9.74
Feature: Stone approach
Description: Native stone and fill
Year Constructed: 1987



Small Scale Features

Location: Mile 9.78
Feature: Turnpike drain
Description: Native timber, stone and fill
Year Constructed: 1987



Small Scale Features

Location: Mile 9.84
Feature: Stone step drain
Description: Native stone and fill
Year Constructed: 1987
Notes: Type 2; Major stone step drain. 8" to 20" deep, 1' to 2' across. These types are similar in style to Type 1, but typically are of a larger scale and incorporate significant stone approaches.



Small Scale Features

Location: Mile 9.85
Feature: Stone steps
Description: Native stone and fill
Year Constructed: 1987



Small Scale Features

Location: Mile 9.87
Feature: Stone step drain
Description: Native stone and fill
Year Constructed: 1987
Notes: Type 2 on level topography.



Small Scale Features

Location: Mile 9.9
Feature: Horizontal corduroy (typical)
Description: Native logs, fill.
Year Constructed: 1960s
Notes: Between mile 9.5 and mile 10.2, numerous examples of 1960s era corduroy can be found. Horizontal corduroy is utilized to prevent trail erosion and muddy conditions on moderately sloping terrain.



Small Scale Features

Location: Mile 10.0
Feature: Vertical corduroy (typical)
Description: Native timber, fill.
Year Constructed: 1960s
Notes: Between mile 9.5 and mile 10.2, numerous examples of 1960s era corduroy can be found. Vertical corduroy is utilized to prevent trail erosion and is typically utilized on relatively flat terrain.



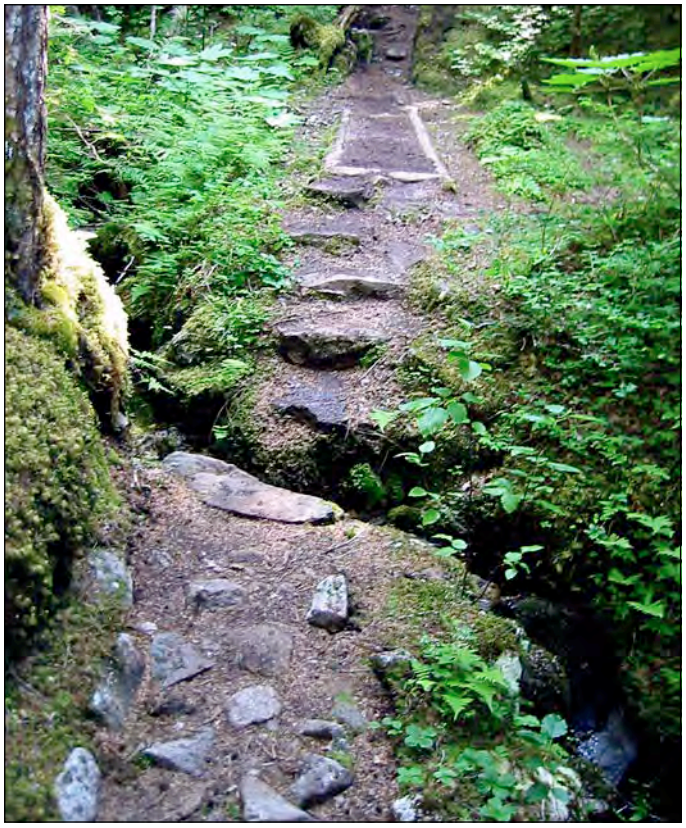
Small Scale Features

Location: Mile 10.20
Feature: Turnpike
Description: Native timber and fill
Year Constructed: 1987



Small Scale Features

Location: Mile 10.24
Feature: Turnpike with stone step
Description: Native timber, stone and fill
Year Constructed: 1987



Small Scale Features

Location: Mile 10.26
Feature: Turnpike, stone step drain (Type 2)
Description: Native timber, stone and fill
Year Constructed: 1987



Small Scale Features

Location: Mile 10.33
Feature: Interpretive sign
Description: Prefabricated steel and fiberglass panel (NPS Harper's Ferry style).
Year Installed: 1988-1990



Small Scale Features

Location: Mile 10.40
Feature: Stone step drain (Type 2)
Description: Native stone and fill
Year Constructed: 1987



Small Scale Features

Location: Mile 10.43
Feature: Turnpike
Description: Native timber, stone and fill
Year Constructed: 1987



Small Scale Features

Location: Mile 10.43
Feature: Interpretive sign
Description: Prefabricated steel and fiberglass panel (NPS Harper's Ferry style).
Year Installed: 1988-1990
Note: This interpretive sign describes historic Pleasant Camp, which was further south along the trail, across the river.



Small Scale Features

Location: Mile 10.65
Feature: Informational sign
Description: Dimensional lumber, routed and painted text.
Year Constructed: 1995



Small Scale Features

Location: Mile 10.65
Feature: Pleasant Camp bear pole
Description: Galvanized steel tubing, concrete footings
Year Constructed: 1996
Note: The bear pole was originally placed at the old Pleasant Camp campground in 1990 and was relocated in 1996.



Small Scale Features

Location: Mile 10.72
Feature: Stone Steps
Description: Native stone, fill
Year Constructed: 1996



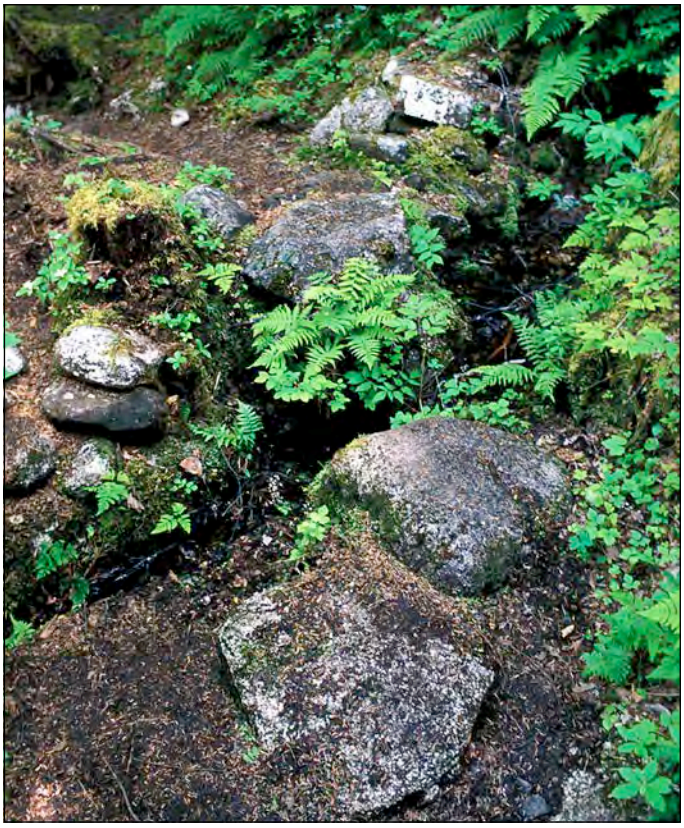
Small Scale Features

Location: Mile 10.85
Feature: Suspension bridge approach, stone steps.
Description: Native stone, fill
Year Constructed: 1996



Small Scale Features

Location: Mile 11.15
Feature: Split log crossing
Description: Native timber split and cut to 8' length.
Year Constructed: 2000



Small Scale Features

Location: Mile 11.35
Feature: Stone step drain (Type 1)
Description: Native stone, fill
Year Constructed: 1996
Notes: Between Mile 11.35 and 11.6 there are numerous type 1 stone step drains.



Small Scale Features

Location: Mile 11.72
Feature: Plank Walk (typical)
Description: 4”x12”x10’ Cedar planks
Year Constructed: 2006



Small Scale Features

Location: 11.74
Feature: Stone step drain (Type 1)
Description: Native stone, fill
Year Constructed: 2006



Small Scale Features

Location: Mile 11.8
Feature: Corduroy
Description: Native Hemlock Poles
Year Constructed: 2006



Small Scale Features

Location: Mile 11.9
Feature: Stone step drain (Type 2)
Description: Native stone, fill
Year Constructed: 2006



Small Scale Features

Location: 12.0
Feature: Directional signage
Description: Plastic, machine routed
Year Constructed: 2006



Small Scale Features

Location: Mile 12.03
Feature: Former Sheep Camp campground composting toilets
Year Constructed: disassembled in 2006.



Small Scale Features

Location: Mile 12.05
Feature: Directional signage
Description: Plastic, machine routed.
Year Constructed: 2006



Small Scale Features

Location: Mile 12.05
Feature: Directional signage
Description: Routed wood, painted.
Year Constructed: 2006

Archeological Features

There are several rich archeological sites and features found in zone 4, particularly in the vicinity of historic Sheep Camp on the western side of the river across from the ranger station. This area was first surveyed in 1979 as well as several times throughout the 1990s. The recreational trail closely coincides with the historic summer trail between Mile 8.39 and 10.0. Along this stretch of trail, telephone lines and other small artifact clusters have been identified. At mile 8.39 a historic trace has been identified and numerous artifact clusters have been found near the river where the trace terminates. Archeological suveys of the canyon have yet to be attempted due to difficult access, but probably contains a rich deposition of artifacts, as it was the preferred wintrer-time route through the canyon.



Archeological Features

Location: Mile 8.62
Feature: Historic trail trace intersection
Description: Historic trail intersection with current recreational trail.



Archeological Features

Location: Mile 8.62 (.2 Mile southwest of trail)
Feature: Historic trail trace
Description: Historic trail trace, looking southwest, Taiya River visible in background.



Archeological Features

Location: Mile 8.62 (.2 Mile west of trail)
Feature: Artifacts
Description: Cast-iron stove parts



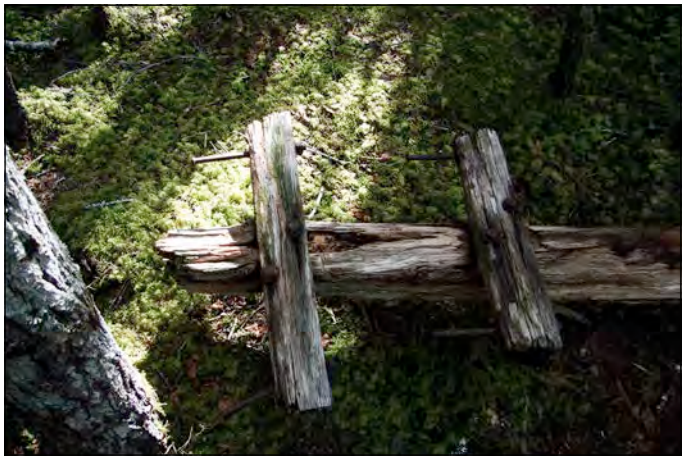
Archeological Features

Location: Mile 8.62 (.2 Mile west of trail)
Feature: Structural artifact
Description: Foundation and partial structure remains.



Archeological Features

Location: 8.93
Feature: Telephone wire
Description: Telephone wire from gold rush era (typical)



Archeological Features

Location: 8.95
Feature: Powerline Pole
Description: DKT Powerline pole from gold rush era (typical).



Archeological Features

Location: Mile 10.33
Feature: Archeological site
Description: Site where gold rush trail crossed Taiya River. The site of historic Pleasant Camp. Near "Frozen Highway" interpretive sign.

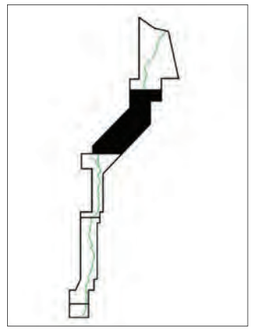
ZONE 4 (south)

MILE 8.3 TO MILE 10.9

CHILKOOT TRAIL
LANDSCAPE FEATURE MAP

KLONDIKE GOLD RUSH
NATIONAL HISTORICAL PARK

CONTEXT



LEGEND:

- (A) archeological feature
- (B) buildings & structures
- [L] land use
- (S) small scale feature

Chilkoot Trail

viewshed

rivers / streams

SCALE: 1" = 1000'
CONTOUR INTERVAL 100 FT.

0 500 1000
250 750

N

4000
3000
2000
1000

MP 8.3 (S) Stone Step Drain

MP 8.62 (A) Archeological Features

MP 8.62 (A) Historic Trace Intersection

MP 8.58 (B) Stone and Log Staircase

MP 8.7 (B) Pole Bridge

MP 8.83 Obscured Vista (spur trail)

MP 8.84 (S) Stone Step Drain Type 1

MP 8.93 (A) Archeological Features

MP 8.94 Viewshed

MP 8.95 (A) Archeological Features

MP 8.96 (S) Puncheon Drain

MP 9.27 Viewshed (spur trail)

MP 9.31 Obscured Vista

MP 9.32 (S) Stone Wall and Drain

MP 9.36 (B) Retaining Wall / Corduroy

MP 9.39 (B) Retaining Wall Stone Tread

MP 9.74 (B)(S) 10 Mile Bridge Retaining Wall Stone Approaches

MP 9.78 (S) Turnpike Drain

MP 9.8 (B) Corduroy Bridge

MP 9.84 (S) Stone Step Drain (Type 2)

MP 9.85 (S) Stone Steps

MP 9.87 (S) Stone Step Drain (Type 2)

MP 9.9 (S) Log Corduroy (horizontal)

MP 10.0 (S) Log Corduroy (vertical)

MP 10.18 (B) Black Bog Turnpike Complex 1

MP 10.20 (S) Turnpike

MP 10.22 (B) Black Bog Complex 2

MP 10.24 (S) Turnpike / Stone Step

MP 10.26 (S) Turnpike, Stone Step Drain

MP 10.30 (B) Puncheon Bridge Turnpike

MP 10.31 (B) Puncheon Bridge

MP 10.33 (A)(S) Interpretive Sign, Archeological Site

MP 10.36 (B) Stone & Log Steps Retaining Wall

MP 10.40 (S) Stone Step Drain

MP 10.43 (S) Turnpike Interpretive Sign Viewshed

MP 10.65 [L](B)(S) Pleasant Camp Campground
Informational Signage
Warming Shelter
Puncheon Bridge
Bear Pole
Pit-Toilet

MP 10.72 (S) Stone Steps

MP 10.85 (B)(S) Suspension Bridge
Cobble Bank Retainer
Stone Approach / Steps

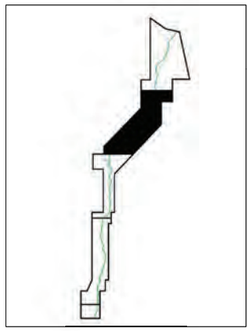
CANYON CITY TRAIL
CREW CAMP

ZONE 4 (north)

MILE 10.9 TO MILE 12.68

CHILKOOT TRAIL
LANDSCAPE FEATURE MAP
KLONDIKE GOLD RUSH
NATIONAL HISTORICAL PARK

CONTEXT



LEGEND:

- (A) archeological feature
- (B) buildings & structures
- [L] land use
- (S) small scale feature

Chilkoot Trail

viewshed

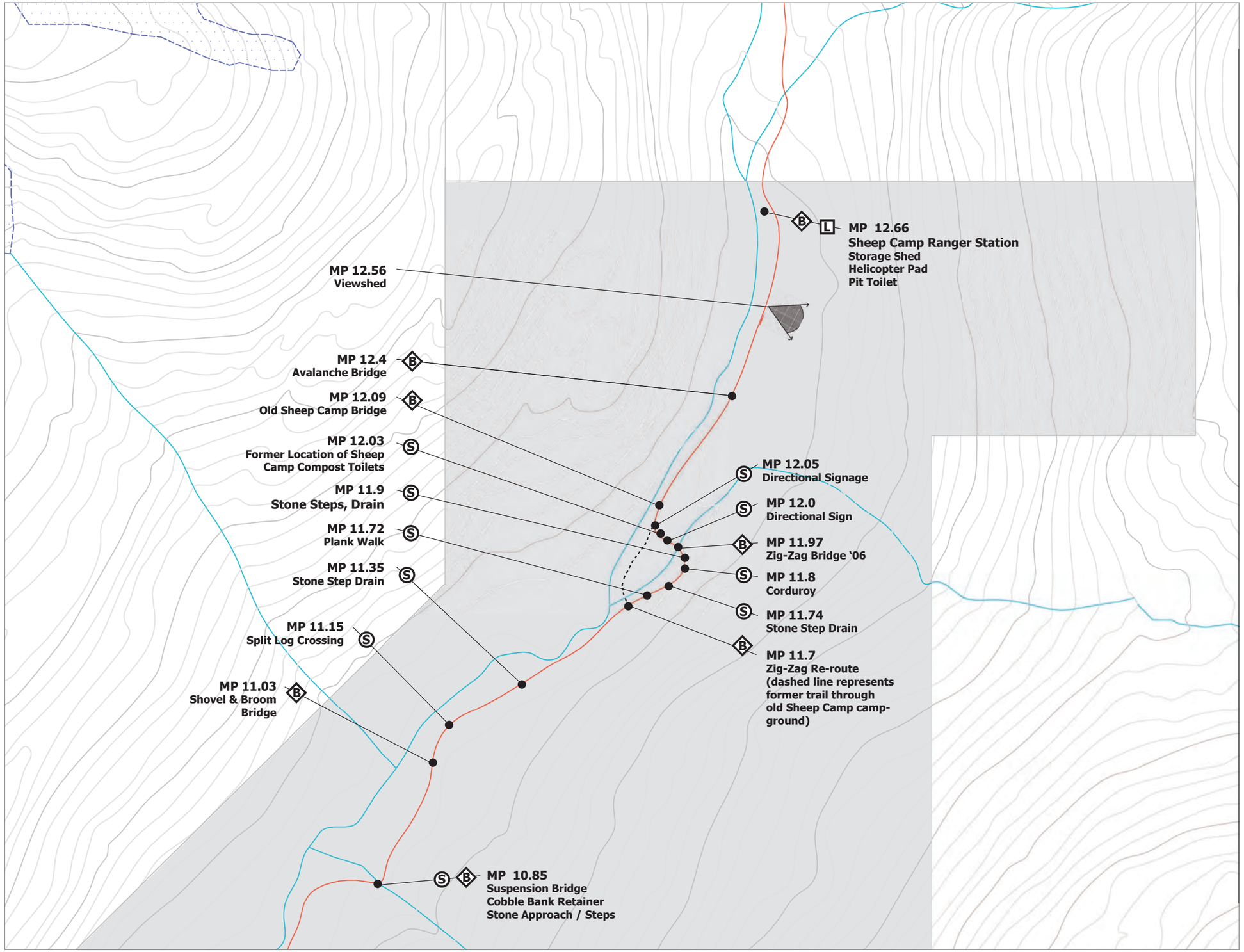
rivers / streams

SCALE: 1" = 1000'

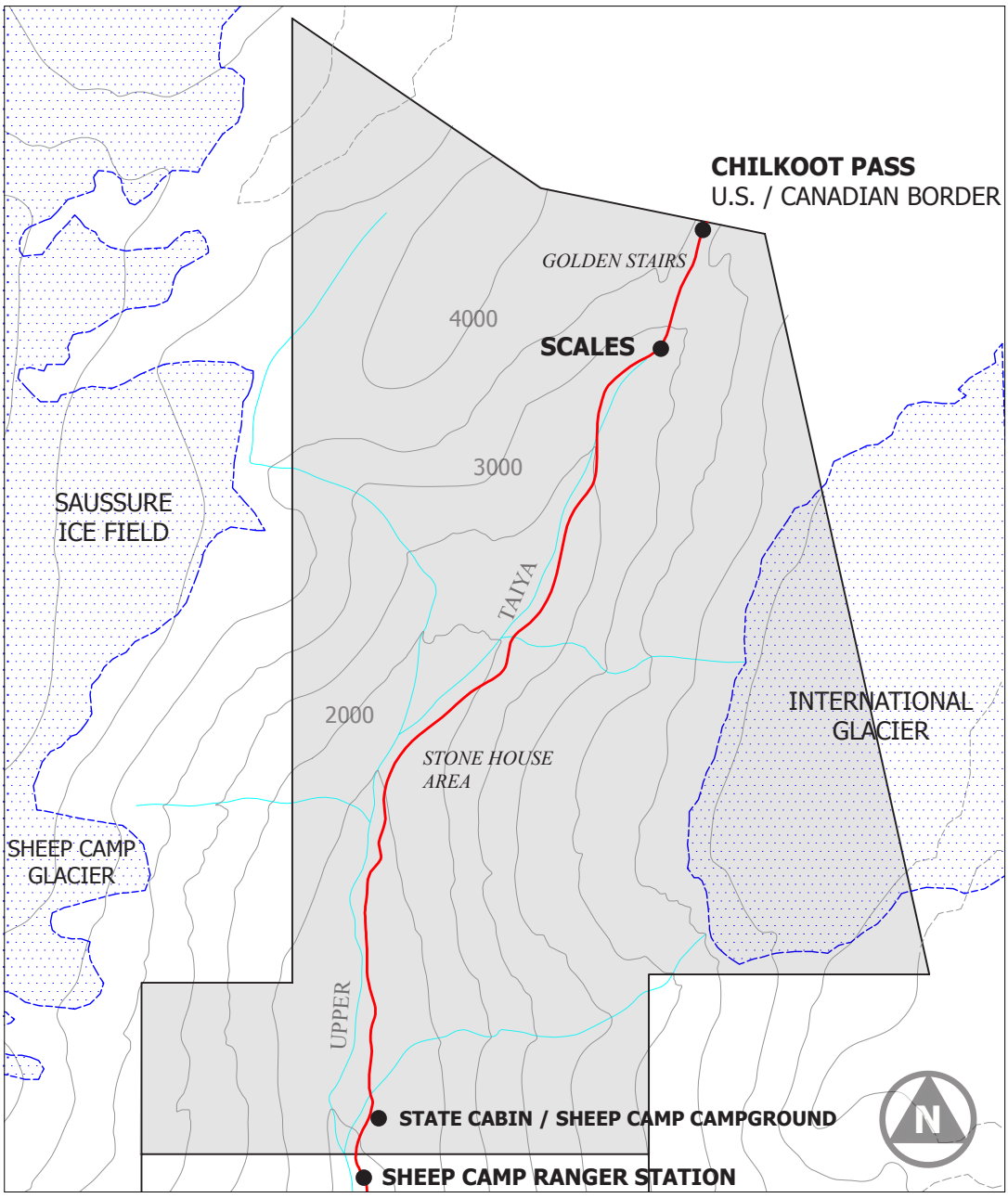
CONTOUR INTERVAL 100 FT.

0 500 1000
250 750

N



ZONE 5
CHILKOOT TRAIL
Mile - 12.68-16.0

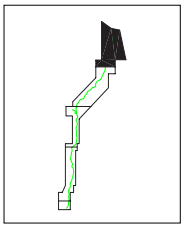


LEGEND:

Chilkoot Trail

spur trails

rivers / streams



ZONE 5

1" = 2850'

CONTOUR INTERVAL
500 FT.

Zone 5 - Mile 12.68 - Mile 16.0

Introduction

Zone 5 begins just after the Sheep Camp Ranger station. The first resource beyond the Ranger station of interest is the Sheep Camp Campground and the State of Alaska log cabin at mile 12.81, at an elevation of approximately 1000 feet. Beyond the State cabin the trail ascends in a northeasterly direction through a series of densely vegetated terraces, then emerges onto talus fields and meanders through massive granite boulders, then past an area known as 'Stone House' (*Tahit*). The trail continues over talus up 'Long Hill' for about 1/2 mile and then emerges onto the first of two rocky plateaus. The first plateau was the site of the Palm Sunday avalanche during the 1898 Gold Rush. The second plateau is known as the 'Scales' area, where freight was re-weighed before its journey up and over the pass. The trail makes its way through this talus covered area, then ascends a steep talus slope known during the Gold Rush as "the Golden Stairs", it then continues through a narrow ravine to Chilkoot Pass and the international boundary with Canada at mile 16. Map 16 identifies the major features of zone 5 and Map 17 identifies and locates the landscape features of zone 5.

Land Use

Land use in zone 5 includes hiking, camping and NPS opeartions. The State of Alaska Cabin (built in 1963) and the Sheep Camp Campground (relocated in 2007) are all located in zone 5. Aside from the Sheep Camp Campground, there is no camping allowed in this zone. Originally, Sheep Camp Campground was sited and constructed in 1963, primarily across a side channel of the Taiya River from the State of Alaska Cabin, although some camp sites were located on the cabin side as well. In 1993 the camp was moved south to approximately mile 12.0 due to the need for expansion. After a major flood in August 2002, which enundated 80 percent of the campground, it was moved once again, to its current location behind the State of Alaska Cabin at mile 12.81



Land Use

The State of Alaska cabin.



Land Use

Warming Shelter at Sheep Camp campground.



Land Use

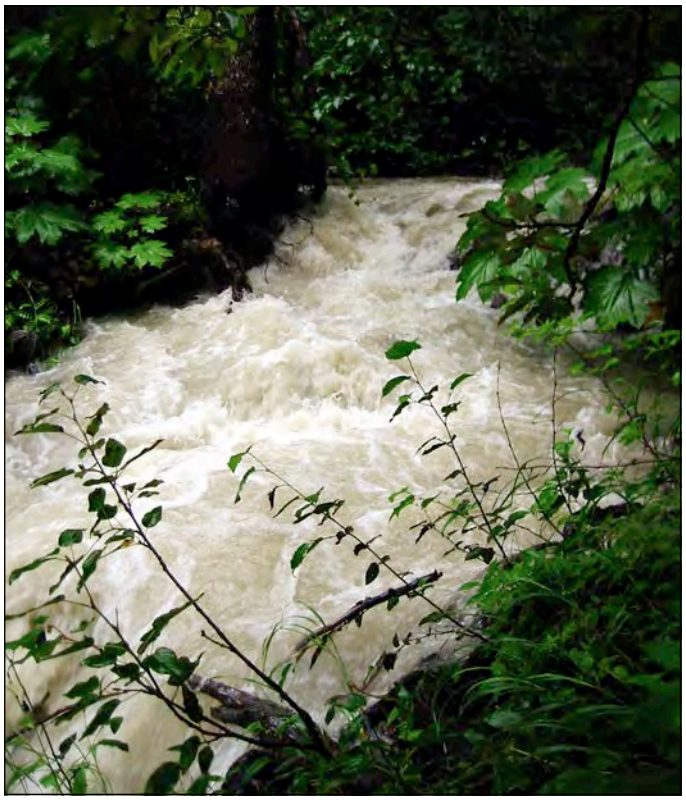
Bear Boxes at Sheep Camp campground.

Natural Systems and Features

The natural systems and features of the upper Taiya Valley in zone 5 include steep glaciated cordillera, precipitous slopes, montane forests, sub-alpine landscapes, and alpine tundra. The mountains are composed predominately of crystalline gneiss and granite. This zone is differentiated from zones 1, 2, 3, and 4 by topography, vegetative cover, climate, and elevation. It is a transitional area between two distinct environments: the interior, typical of the Yukon Territory and northwestern British Columbia, and the moist, lush Taiya River Valley typical of coastal southeast Alaska. Zone 5 experiences high levels of precipitation in both winter and summer. The influence of interior weather patterns is often experienced in the valley from Sheep Camp to the Pass, where heavy winter snow accumulates and avalanche danger is high.

Water sources for the drainage system include precipitation as well as meltwater from several glaciers. Zone 5 is the only zone in the park that has a glacier (International Glacier) within the park boundaries. Flow regimes in zone 5 are subject to significant daily and seasonal fluctuations. The drainage system encompasses numerous streams that serve as tributaries to the upper Taiya River. When it rains at higher elevations, and the glaciers begin to melt, the rocky landscape comes alive with tributaries swelling the upper reaches of the Taiya. The sub-alpine and alpine reaches of this zone are narrow, the hydrology constricted by the steep valley walls that surround it. There are few areas found in this stretch of trail that afford sites for building structures or campgrounds due to topographic conditions and environmental instability, such as avalanche danger in winter and spring.

Glacial landforms dictate the kinds and distributions of upland, wetland, and aquatic habitats in zone 5. The lower reaches of zone 5 provides rich habitat for boreal toads, black bears, arctic ground squirrels, hoary marmots, pikas, rock, willow and white-tailed ptarmigan. Occasionally, mountain goats are spotted but usually only from a distance at higher elevations. Brown bear from the Canadian interior are known to make their way to the lower valley through zone 5 when salmon are running in the lower valley, but are not common in zone 5.



Natural Systems and Features

Location: Mile 12.98
The lower portions of zone 5 are lush and moist, with numerous, glacial-fed tributaries draining into the Upper Taiya River. Flooding of these streams is a common occurrence in this zone. Dense riparian vegetation is characteristic of the lower portions of zone 5.



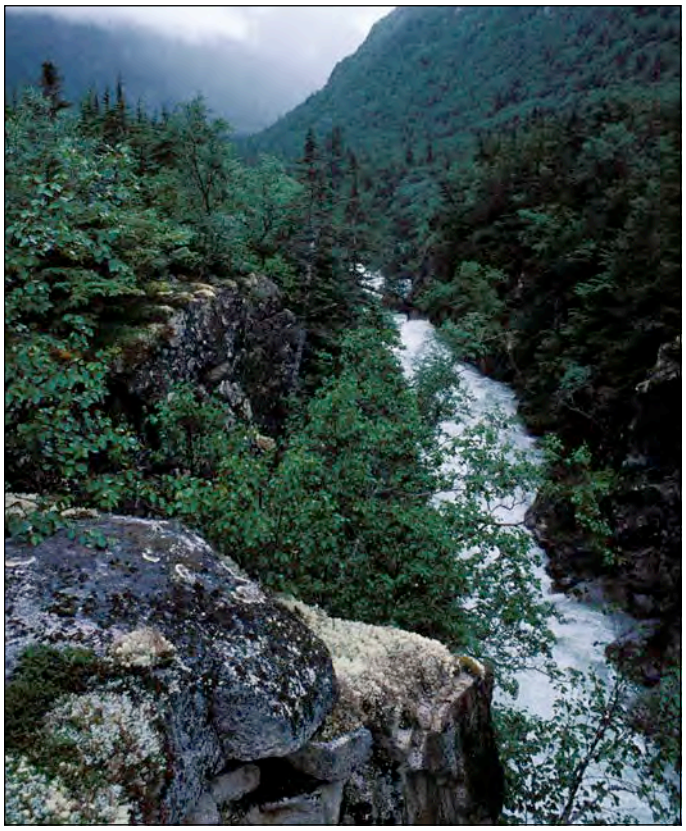
Natural Systems and Features

Tracks on the boardwalk indicate recent bear presence. The lower portion of zone 5 is known as the "Salad Bowl," due to its popularity as a foraging area for black bears because of its lush vegetation.



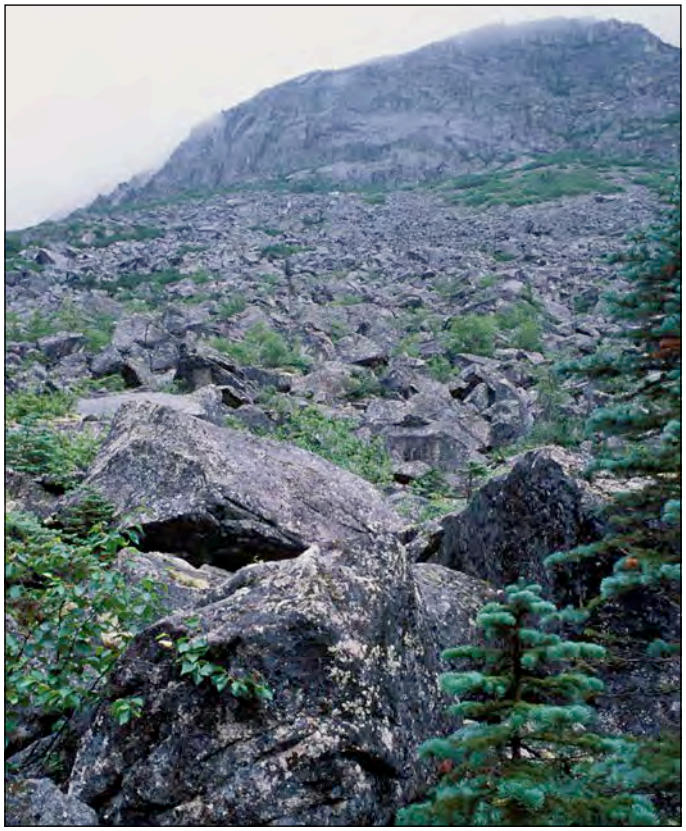
Natural Systems and Features

Location: Mile 12.8
During high precipitation, tributaries of the upper Taiya River overflow and drain down portions of the trail.



Natural Systems and Features

Location: Mile 13.35
View south from a spur trail that leads to a ledge overlooking the upper Taiya River Canyon. The drop here is about 150 feet and the average width of the river below is only 30 feet. This upper canyon area has many cascades and pools; the river flow is swift and turbulent.



Natural Systems and Features

Location: Mile 13.8
Emerging from the forest, the trail crosses the first talus field. The trail continues largely over bedrock and boulders through stunted vegetation.

Natural Systems and Features

Location: Mile 13.77
Sheep Camp Glacier, while outside of the park boundaries, is one of a number of glaciers that feed the headwaters of the Taiya River in zone 5.



Natural Systems and Features

Location: Mile 14.0
Large boulders, some the size of small houses, are strewn from the cliffs to the river banks of the upper Taiya. This area is historically known as Stone House, or *Tahit* in Tlingit.



Natural Systems and Features

Location: Mile 14.35
View south down the U-shaped upper Taiya River valley above tree line. Typical disturbance vegetation lines the banks. The trail meanders over talus along the river for about one half mile.





Natural Systems and Features

Location: Mile 14.62
View north of the first terrace, towards Scales and the Pass, which is often obscured by cloud cover. Patches of snow often remain until late summer at this elevation. Large fluvial areas of glacial deposition and avalanche debris are common.



Natural Systems and Features

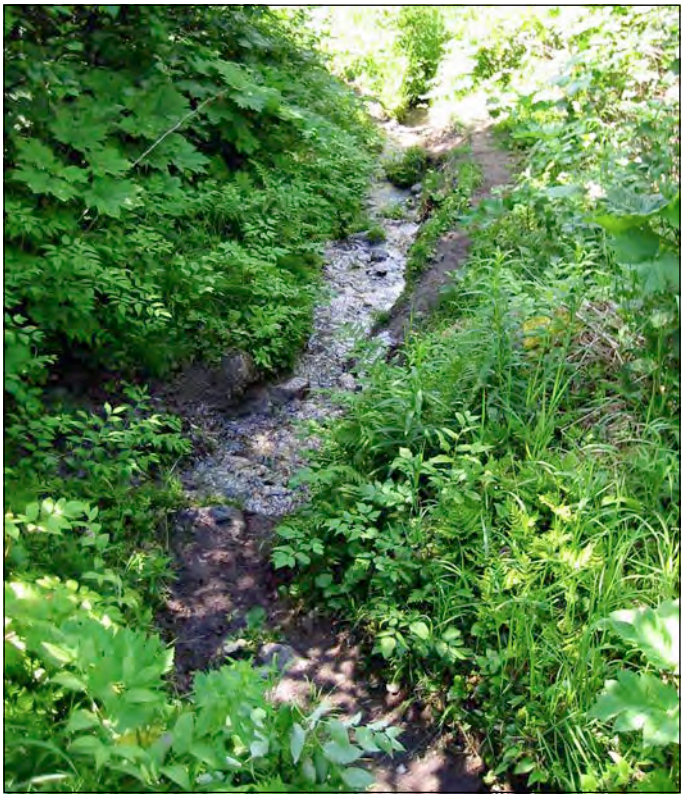
Location: off of main trail, approx. Mile 15.3
High alpine meadow near Scales. Even though this area is above tree line, lush stretches of alpine heath and heather, as well as lichen, moss and fern cover the stony surface.

Topography

Glaciation is largely responsible for shaping the present-day landscape and topography of zone 5. A large ice sheet extended over the valley and scoured the lower peaks. As glacial ice melted, the area below the summit received an immense deposition of gravel and boulders, followed by an intense period of fluvial erosion. As a result major outwash plains were formed in the headwaters of the upper Taiya River, marked by distinct terraces of colluvial deposits. This series of stepped terraces record the retreat of the glacier on the landscape, as well as the drainage patterns which occurred during the later stages of this retreat. Although the glaciers have retreated significantly in the valley, their hydrological effects continue to shape the topography of zone 5.

In zone 5, the Chilkoot Trail ascends rapidly from Sheep Camp (1000 ft.) winding through mixed deciduous/conifer forests along the eastern bank of the upper Taiya River, and continuing on through the sub-alpine forest and upland terraces, finally emerging into the barren and rocky alpine slopes that ascend to the summit (3500 ft.). There is a marked change in climate and vegetation as elevation changes. The lower elevations are lush and forested, while the upper alpine landscape is characterized by , talus fields, substantial bedrock, thin soil, an absence of trees, and a proliferation of mosses, lichen, heaths, heathers and ferns. These radical transitions in character take place over a distance of about three miles.

The soils of zone 5 can be classified into three broad groups: well-drained soils, mineral soils with impeded drainage, and organic soils. These groups are found throughout the zone and commonly occur in close association. Mineral soils with impeded drainage occur in drainage ways, outwash plains, and on sloping valley sidewalls. Organic soils occur on areas of both flat and steep relief above and below timberline. Areas above tree line are generally shallow, occupying areas over bedrock or in depressions. Soil development in the upper parts of the trail is not widespread, and consists of poor, gravelly soils, which form in till and colluvium. The topographic features of Zone 5 define and shape trail alignment as well as the siting of bridges, stone steps, and retaining walls.



Topography

Location: Mile 12.8
Landscape character changes rapidly with elevation in zone 5. The lower elevations are largely riparian, with a conspicuous absence of large trees, probably due to seasonal avalanches.



Topography

Location: Mile 13.35
As elevation increases, sub-alpine forest and upland terraces become more predominant.



Topography

Location: Mile 15.7
At the highest elevations near the pass, talus slopes and sparse vegetation dominate trail character. Barren, rocky alpine slopes ascending to the summit (3500 ft.).

Vegetation

The initial reach of zone 5 from approximately mile 12.8 to 13.35 is best characterized as riparian, and transitions at approximately mile 13.35 to a montane forest community. Representative species include: sub-alpine fir (*Abies lasiocarpa*) black cottonwood (*Populus trichocarpa*), paper birch (*Betula papyrifera*), Red alder (*Alnus rubra*), and Pacific willow (*Salix lasiandra*), with several significant stands of Sitka spruce (*Picea sitchensis*), and Western hemlock (*Tsuga heterophylla*). Dominant understory vegetation includes ferns and mosses, Rusty menziesia (*Menziesia ferruginea*), and devil's club (*Oplopanax horridus*). Red alder (*Alnus rubra*) is typically present in early succession series leading to spruce forest, but also appears along the steep slopes, and avalanche chutes on the east and western margins of the valley. Other typical disturbance species include Sitka willow (*Salix sitchensis*) and Pacific willow (*Salix lasiandra*). The mixed coniferous and deciduous forests in the lower reaches of zone 5 have canopies ranging from opened to closed.

The sub-alpine ecotone of zone 5 begins around mile 13.35 and transitions to alpine around mile 14.0. Typical species include oval leaved blueberry (*Vaccinium ovalifolium*), cow parsnip (*Heracleum lanatum*), lady fern (*Athyrium felix-femina*), White mountain heather (*Cassiope mertensiana*), dwarf willow (*Salix herbacea*), Pink mountain heather (*Phyllodoce empertriformis*), crowberry (*Empetrum nigrum*) and Sitka mountain ash (*Sorbus sitchensis*). These areas are a mix of conifer/deciduous forest and sub-alpine meadows. Around mile 13.9, mountain hemlock (*Tsuga mertensiana*) begins to supplant the Western hemlock as the dominant tree species. Sitka spruce (*Picea sitchensis*) occurs up to tree line in zone 5, but in a stunted, dwarf form.

From mile 14.00 to mile 14.35, zone 5 transitions from sub-alpine to alpine tundra. The alpine tundra is commonly divided into the low, middle, and high tundra. The low alpine zone begins around mile 14.0 and consists of various disturbance communities with low-lying sedges, grasses, mosses, lichens, shrubs. The greatest number and diversity of alpine species are found in this area. Typical species are sedges: ridge sedge (*Carex bigelowii*), meadow grass (*Poa arctica*), Black alpine sedge (*Carex nigricans*), Grey sedge (*Carex canescens*), and tufted club rush (*Trichophorum caespitosum*). Mosses include: tangle moss (*Heterocladium procurrens*), pipe-cleaner moss (*Rhytidiopsis robusta*), tree moss (*Climacium dendroides*), Red roofed moss (*Ceratodon purpureus*) and common beard moss (*Schistidium apocarpum*). Grasses include: bluejoint (*Clamagrostis canadensis*), Alaska brome (*Bromus sitchensis*) Red fescue (*Festuca rubra*) and spike trisetum (*Trisetum spicatum*). There are also several species of forbs found along and contiguous to the trail in zone 5.

The high alpine zone is well established around mile 14.5. Soils range from wet to well drained, well developed to poorly developed. The rocky tundra-like landscape is a mosaic of sturdy hummocks of low growing plants, water covered areas (bowls) and sporadic scrub vegetation composed of mosses, lichens, and dwarfed vascular plants. Arctic bluegrass (*Poa arctica*), tufted hairgrass (*Deschampsia cespitosa beringensis*), rock moss (*Racomitrium canescens*), hoary rock moss (*Racomitrium lanuginosum*), narrow leaved saussurea (*Saussurea viscida*) and mountain harebell bluebell (*Campanula lasiocarpa*) represent a few of the species in the upper reaches of this zone. As exposed ridges offer little moisture and protection from the wind, vegetation is scarce on exposed slopes and summits. Nevertheless, significant heath, heather and alpine forb communities persist where moisture is abundant, and rock outcrops provide shelter.



Vegetation

Location: Mile 12.95
Monkshood *(Aconitum delphinifolium, ssp. delphinifolium)*, cow parsnip *(Heracleum lanatum)*, shield fern *(Dryopteris)*, and snake grass *(Equisetum arvense)*, are typical riparian species found in the lower reaches of zone 5.



Vegetation

Location: Mile 13.60
At mile 13 riparian vegetation transitions to a stand of sub-alpine fir *(Abies lasiocarpa)*, the first signs of the sub-alpine landscape.



Vegetation

Location: Mile 13.70
Sub-alpine vegetation begins to dominate around MP 13.25, typical species include mountain hemlock *(Tsuga mertensiana)* Rusty menziesia *(Menziesia ferruginea)* and dwarf Sitka spruce.



Vegetation

Location: Mile 15.0
High alpine meadow near Scales. Even though this area is above tree line, lush stretches of alpine heather *(Phyllodoce empetriformis)*, as well as lichen, moss and fern blanket the stony surface.



Vegetation

Location: Mile 15.0
Detail of high alpine meadow near Scales. *Cornus canadensis* found along the trail at lower elevations transitions to *Cornus suecica*, at higher elevations. Hybrids are common.



Vegetation

Location: Mile 15
High alpine meadow near Scales. Even though this area is above tree line, several Mountain hemlock *(Tsuga mertensiana)* find a niche in a sheltered rock outcrop.

Circulation

The trail in zone 5 requires extensive maintenance on the tread and side slope to prevent erosion, a direct result of heavy snow load, avalanche events, storm run-off, rock fall, and numerous stream crossings. Stone steps, cairns, retaining walls, stone culverts, bridges, boardwalks and drainage ditches prevent damage to the fragile sub-alpine and alpine meadows and insure visitor safety.

The tread in the initial reach of this zone consists of mineral soil on bedrock with several sites where the trail crosses bedrock. The terrain is increasingly rugged as it climbs through dense thickets of brush, meandering stream courses, and talus fields. The tread on the upper reach consists of mineral soil, gravel, and talus. Several areas of trail are extremely hazardous due to the rocky terraces and steep slopes, especially in wet conditions. The alignment of the trail is sometimes difficult to determine in zone 5 due to rock slides, flooding, and large boulder fields. The "Golden Stairs" is one of the most difficult parts of the trail, ascending to the Pass at about 35 degrees over a talus field. This area is particularly treacherous during inclement weather, as the winds can be fierce and the rocks slippery when wet. The trail through this area is marked by fiberglass rods placed at strategic locations along the talus field. Snow fields that linger well into July also make trail discernment difficult.

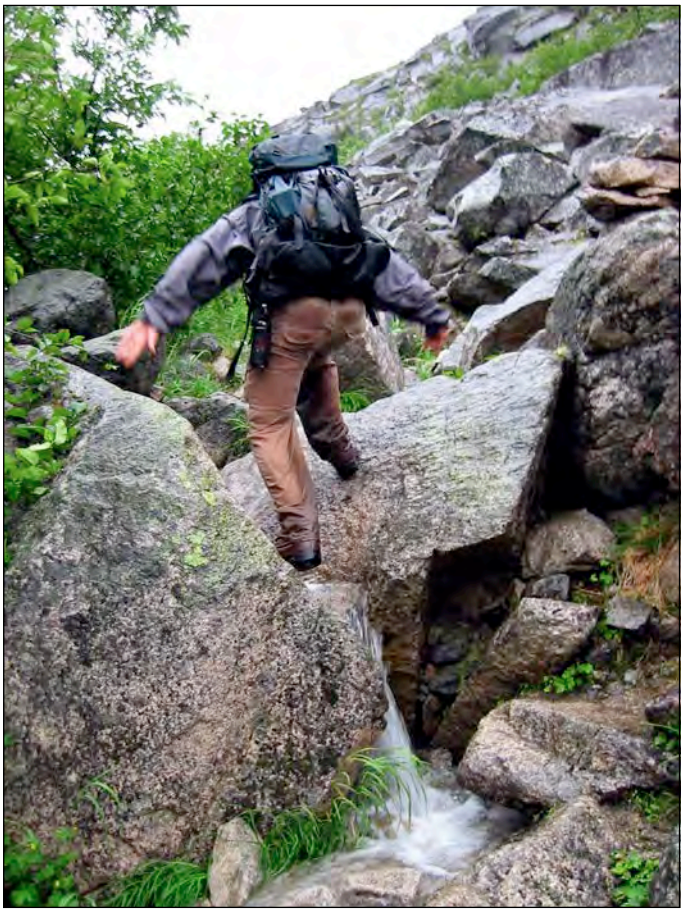
The current trail alignment (with minor variations) was routed by the State of Alaska in the early 1960s. Due to the limitations of topography, hydrology and vegetation, it is likely the modern trail alignment coincides closely to historic routes, especially historic summer routes. This becomes increasingly likely in the upper reaches of zone 5 where route choices are severely limited due an extremely narrow trail corridor. From the first terrace area (mile 14.5) to the Chilkoot Pass (mile 16.0) the modern and historic trail alignments are almost identical.

In 2007, just past the State Cabin, a portion of trail and 'Salad Bowl' bridge were washed out. The trail was rerouted along the left bank of the stream to the new crossing about 100 yards upstream (Mas O' Menos bridge). After this crossing a new section of trail was built which intersects the old section of trail after about 500 feet. The 12.7 mile crossing (a small footbridge) still exists on the abandoned section of trail. Just beyond this intersection of the old and new trails, another section of trail has been partially eroded by the nearby stream. This section of trail from mile 12.4 to approximately mile 13 has a long history of flood events, trail erosion and avalanche damage.



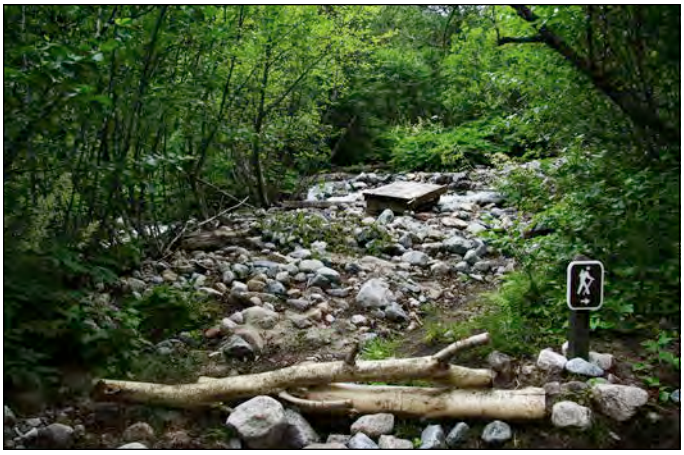
Circulation

Mile 12.95
Erosion can be a significant maintenance issue in the lower reaches of zone 5.



Circulation

Mile 14.0
Talus fields make the trail difficult to discern, and dangerous when wet.



Circulation

Trail realignment (2007) just beyond the Sheep Camp State Cabin at mile 12.84, what remains of "Salad Bowl" bridge in the background, center.

Circulation

Trail realignment (2007) at mile 12.96 just beyond the 12.7 mile bridge (still in place but now defunct due to reroute), old trail is on the right, new trail on the left leading to Mas O' Menos bridge and Sheep Camp campground.



Circulation



Trail alignment below Scales, 1897 (University of Washington Libraries, Special Collections, #2038).

Circulation



Trail alignment Mile 14.85, 2008.

Views and Vistas

Historically, public access to views and constructed vistas in zone 5 of the Chilkoot Trail was not a primary factor in the alignment of the trial. Views and vistas are limited in the lower reaches of zone 5 until approximately mile 13.0 where vegetation decreases and views emerge unimpeded. From this point on views and vistas are dramatic.



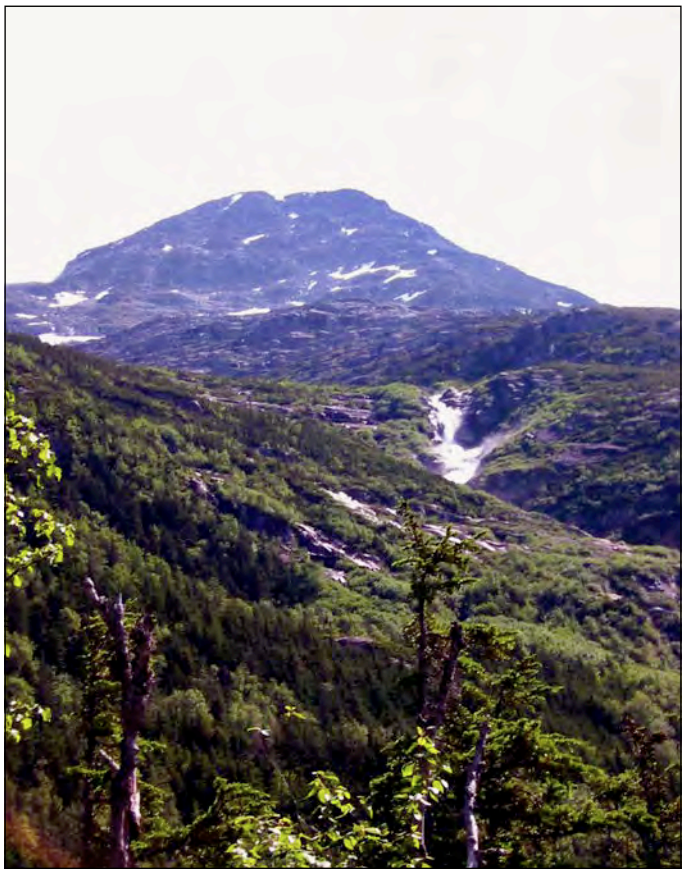
Views and Vistas

Location: Mile 13.35
View west to Sheep Camp Glacier and waterfall.



Views and Vistas

Location: Mile 13.35
View down valley and canyon from end of spur trail.



Views and Vistas

Location: Mile 13.36
Description: View south east to International Falls and Mt. Cleveland.



Views and Vistas

Location: Mile 13.77
Description: View west to Sheep Camp Glacier and waterfall.



Views and Vistas

Location: Mile 14.62
Description: View south to the upper Taiya River Valley from the top of Long Hill. Sheep Camp Glacier is visible to right.



Views and Vistas

Location: Mile 15.4
Description: View north to Scales, "Golden Stairs" and the Peterson Pass.



Views and Vistas

Location: Mile 15.87
Description: View south to upper Taiya River Valley from top of "Golden Stairs."

Buildings and Structures

The primary buildings and structures found in zone 5 are the State of Alaska log cabin, bridges and associated features (rock retaining walls), the Sheep Camp Warming Shelter, tent platforms, and composting toilets. An NPS emergency storage locker is sited at the Scales. All material used for bridge construction is flown in by helicopter to the site, as there are limited native materials other than stone in zone 5.



Buildings and Structures

Location: Mile 12.81
Description: State of Alaska cabin
Year Constructed: 1963



Buildings and Structures

Location: Mile 12.81
Description: Tent platforms (typical). Milled dimensional lumber structure with cedar decking. All materials imported.
Year Constructed: 2006
Notes: There are twenty one (21) tent platforms at the new Sheep Camp campground.



Buildings and Structures

Location: Mile 12.81
Description: Warming shelter. Wooden framed structure with canvas cover and cast iron woodstove.
Year Constructed: 2006 (relocated from old Sheep Camp campground)



Buildings and Structures

Location: Mile 12.81
Description: Bear boxes.
Year Constructed: 2006



Buildings and Structures

Location: Mile 12.81
Description: Composting toilets
Year Constructed: 2006
Note: The shelter portion of these structures was moved from old Sheep Camp, only the raised platforms were constructed in 2006.



Buildings and Structures

Location: Mile 12.81
Description: Composting toilet
Year Constructed: 2006
Note: The shelter portion of this structures was moved from old Sheep Camp, only the raised platforms were constructed in 2006.



Buildings and Structures

Location: Mile 12.93
Description: Mas O' Menos bridge. 35' cottonwood stringers, 2"x6"x4' treated decking.
Year Constructed: 2008



Buildings and Structures

Location: Mile 12.99
Description: "Blueberry" bridge. 6"x6"x32' stringers, 3"x12"x3' cedar decking.
Length: 32 feet
Year Constructed: (Replacement)1987
Note: Original bridge was located further downstream and was built in in the late 1970s, it was replaced in 1986 further upstream. This bridge was destroyed by a falling tree (due to avalanche) in the spring of 1987. The latest version, pictured here, was re-built in the same location in the summer of 1987.



Buildings and Structures

Location: Mile 13.06
Description: Big Step bridge. 6”x 6”x15’ stringers, 3”x12”x3’ cedar decking.
Length: 15 feet
Year Constructed: 1990



Buildings and Structures

Location: Mile 13.07
Description: Rock retaining wall, 6 feet high
Year Constructed: 2001



Buildings and Structures

Location: Mile 13.07
Description: 12” diameter culvert 4’ long with fill built up around the culvert and compacted.
Year Constructed: 2005
Notes: Replaced Glu Lam plank bridge pictured in image above.



Buildings and Structures

Location: Mile 13.26
Description: 13 mile bridge. 6”x 6”x 20’ stringers, 3”x12”x3’ cedar decking.
Length: 20 feet
Year Constructed: 1991

Small Scale Features

Small-scale features found in zone 5 include directional signage, interpretive signage (wooden and metal), rock steps, bridge approaches and abutments, rock cairns, and wooden board walks.



Small Scale Features

Location: Mile 12.81
Feature: Interpretive sign
Description: Metal frame with fiberglass panels (NPS Harper's Ferry style). Near State of Alaska Cabin
Year Installeded: 1988-1990



Small Scale Features

Location: Mile 12.81
Feature: Directional signage
Description: Routed wood sign with painted lettering.
Year Constructed: 1960s era



Small Scale Features

Location: Mile 12.81
Feature: Interpretive avalanche sign
Description: Metal frame with fiberglass panels.
Located next to State of Alaska Cabin
Year Installed: 2007



Small Scale Features

Location: Mile 12.81
Feature: Directional Sign
Description: Routed wood, painted.
Year Constructed: 2007



Small Scale Features

Location: Mile 13.0
Feature: Stone step drain
Description: Native granite stones with drainage ditch.
Year Constructed: Unknown



Small Scale Features

Location: Mile 13.06
Feature: Bridge approach
Description: Southern approach to "Big Step" bridge is constructed with three massive granite boulders supported with fill and cobble.
Year Constructed: 1990



Small Scale Features

Location: Mile 13.06
Feature: Bridge approach
Description: Northern approach to 'Big Step' bridge is constructed with two massive granite boulders supported with fill and cobble.
Year Constructed: 1990



Small Scale Features

Location: Mile 13.27
Feature: Boardwalk
Description: 3”x12” planks on 3”x12” cedar blocks, five sections, various plank lengths. Overall length approx. 50 feet
Year Constructed: 1996



Small Scale Features

Location: Mile 13.43
Feature: Plank walk
Description: Single cedar 3”x12” plank on earth, no blocks for support. Length approx. 12 feet
Year Constructed: 2002



Small Scale Features

Location: Mile 13.51
Feature: Board walk
Description: 3”x12” cedar planks on 3”x12” cedar blocks, five sections, various plank lengths. Overall length approx. 40 feet
Year Constructed: 2002



Small Scale Features

Location: Mile 13.53
Feature: Forest boardwalk
Description: 3”x12” planks on 3”x12” cedar blocks, three sections, various plank lengths. Overall length approx. 30 feet
Year Constructed: 2002



Small Scale Features

Location: Mile 13.91
Feature: Stone steps
Description: Granite boulder steps, two sections with thirteen steps total.
Year Constructed: 2001



Small Scale Features

Location: Various (Mile 14.5-16.0)
Feature: Fiber-glass trail marker
Description: Typical trail marker wand found along trail from approx. Mile 14.0 to the Pass.



Small Scale Features

Location: Various (Mile 14.-15.5)
Feature: Stone trail marker
Description: Typical stone cairn found along upper reaches of trail.



Small Scale Features

Location: Mile 14.89
Feature: Interpretive sign
Description: Tramway tower interpretive sign. Because of its location in an avalanche zone, this sign has yet to be sited properly. It has been moved several times and each time yearly avalanche destroys part or all of the stand, dislodging the frame. Pictured here the frame is resting on the ground. The mangled stand is just behind it.
Year Installed: Original 1988-1990. Latest 2000



Small Scale Features

Location: Mile 15.39
Feature: Interpretive sign
Description: Scales interpretive sign and Golden Stairs interpretive sign.
Year Constructed: 1988-1990
Note: The sign in the background is one of the original interpretive signs installed in 1974. This is the last remaining sign from this era.



Small Scale Features

Location: Mile 15.94
Feature: Stone monument
Description: Stone monument commemorating the Klondike Gold Rush near the international border with Canada.
Year Constructed: 1968

Archeological Features

Extensive archeological surveys and studies have been conducted in zone 5 since the early 1970s and are ongoing. Analysis of archeological features and artifacts provides information that identifies physical remains of structures, telephone lines and poles, power line poles, stoves, "knock down" boats and myriad general artifacts. In situ structural remains and artifacts, both excavated and unexcavated, are significant resources that have continued to yield archeological data from the Gold Rush era. While most of the research to date has been focused on the Gold Rush era, some studies have identified pre-rush artifacts near Stone House. Due to the extremely large number of artifacts in this zone, only major features are documented here.



Archeological Features

Location: Mile 13.76
Feature: Gold rush era grave marker
Description: Choyinsky's grave site, circa. 1898
Note: Choyinski may have been buried here initially, however historic sources suggest his body was moved to the Dyea Cemetery in 1898.



Archeological Features

Location: Mile 13.98
Feature: Gold rush era artifact
Description: Pully wheel from the CR&T tramway.



Archeological Features

Location: Mile 14.25 (west of trail)
Feature: Pre-gold rush and gold rush era archeological site
Description: Stone House area. Many artifacts have been identified in this area due to its popularity as a campground and an area to cache goods on the way to the Pass. Pre-rush artifacts have also been found in small rock shelters in the vicinity.



Archeological Features

Location: Mile 14.75 (west of trail and upper Taiya river)
Feature: Gold rush archeological feature
Description: Alaska Railroad and Transportation Company (AR&T) powerhouse ruin.



Archeological Features

Location: Mile 14.8 (west of trail and upper Taiya river)
Feature: Gold rush era artifact
Description: remnant of wooden power line pole near ART powerhouse. Probably a remnant of the DKT powerline.



Archeological Features

Location: Mile 14.89 (west of trail)
Feature: Gold rush era structural archeological feature
Description: Chilkoot Railroad and Transport Company (CR&T) tramway tower.

Archeological Features

Location: Mile 14.89 (west of trail)
Feature: Gold rush era structural archeological feature
Description: Chilkoot Railroad and Transport Company (CR&T) tension station.
Notes: Some debate exists as to whether this was a component of the CR&T system, as is commonly believed, or that of the AR&T system. Historical photos (See pg. 61 of this document) and some archeological evidence suggest the tension station may have been a component of the AR&T system, and the tramway tower pictured above (which is is in close proximity to the tension station) a component of the CR&T.





Archeological Features

Location: Various
Feature: Gold rush era artifacts
Description: Glass insulators for telephone line.



Archeological Features

Location: Various
Feature: Gold rush era artifact
Description: Typical metal utility (telephone) pole with wooden dowl to attach glass insulator.



Archeological Features

Location: Mile 15.3 (east of trail)
Feature: Gold rush era artifact
Description: Tramway boiler near Scales. Possibly associated with Archie Burns tramway, or DKT tramway.



Archeological Features

Location: Mile 15.39
Feature: Gold rush archeological feature.
Description: Unknown structural remains at Scales. 'Golden Stairs' and 'Petterson Pass' visible top center.



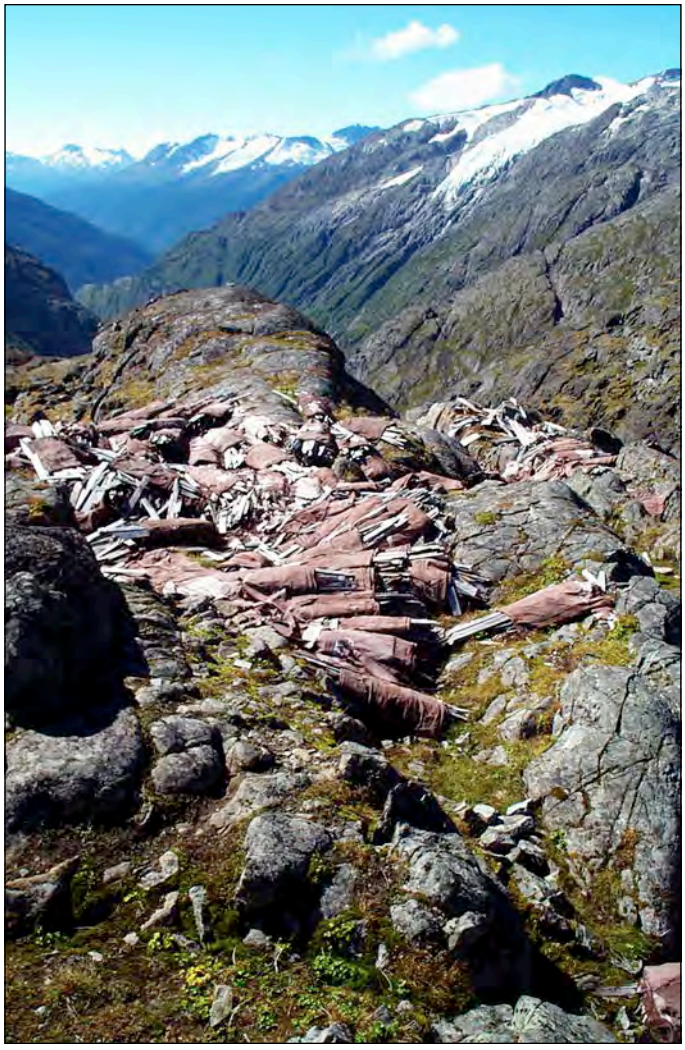
Archeological Features

Location: Mile 15.39
Feature: Gold rush era artifacts
Description: Miscellaneous artifacts at Scales.



Archeological Features

Location: Mile 15.88
Feature: Gold rush era artifact
Description: Gasoline powered winch near top of Golden Stairs of Chilkoot Pass. Probably associated with Archie Burns tramway.



Archeological Features

Location: Mile 15.9 (east of trail)
Feature: Gold rush era artifact cluster
Description: Knock-down boats abandoned at Chilkoot Pass. Possible location of tramway terminus.

U.S. / CANADIAN BORDER

MP 16.0
Chilkoot Pass
Canadian Border

MP 15.88
Archeological Feature

MP 15.94
Stone Monument

MP 15.9
Archeological Feature

MP 15.87
Viewshed

4000

3000

MP 15.4
Viewshed

MP 15.39
Archeological Feature
Interpretive Signage

MP 15.3
Archeological Feature

U.S. / CANADIAN BORDER

MP 14.89
Archeological Features (2)

MP 14.85
Interpretive Sign

MP 14.75
Alaska Railroad and Transportation Company
Powerhouse ruins/ Power Pole remnant

2000

MP 14.0 - 16.0
Fiber-glass Trail Marker (typical)
Stone Cairn Trail Marker (typical)

MP 14.62
Viewshed

INTERNATIONAL
GLACIER

4000

Historic Stone House MP 14.25
Archeological Site

MP 13.98
Archeological Feature

MP 13.91
Stone Steps

MP 13.77
Viewshed

MP 13.76
Archeological Feature

SHEEP CAMP
GLACIER

MP 13.53
Forest Boardwalk

MP 13.51
Plank Boardwalk

MP 13.36
Viewshed

MP 13.43
Plank walk

MP 13.35
Spur trail Viewshed

MP 13.27
Plank Boardwalk

MP 13.26
13 Mile Bridge

MP 13.0
Stone Step Drain

MP 12.99
"Blueberry" Bridge

MP 12.84 - 12.94
Trail Re-route (2007)

MP 13.07
Retaining Wall
Culvert

MP 13.06
Big Step Bridge
Stone Approach

MP 12.93
'Mas O' Menos' Bridge

MP 12.82
12.5 Mile Bridge

MP 12.81
State of Alaska Cabin / Sheep Camp Campground
Interpretive / Directional Signage
CompostingToilets, Tent Platforms

Sheep Camp Ranger Station

1000

0 660 1320
330 990
SCALE: 1" = 1320'

N

ZONE 5

MILE 12.68 TO MILE 16.0

CHILKOOT TRAIL LANDSCAPE FEATURE MAP

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK

LEGEND:

- A archeological site/feature
- B buildings & structures
- L land use
- S small scale feature

Chilkoot Trail

viewshed

rivers / streams

CHAPTER 4: ANALYSIS & EVALUATION

CHAPTER FOUR: ANALYSIS AND EVALUATION

Statement of Significance

This section of the Chilkoot Trail Cultural Landscape Report addresses the scale of landscape evolution throughout the past century through a schematic interpretation of its historic and contemporary landscape characteristics. The Chilkoot Trail is already recognized as contributing to the significance of a National Historic Landmark, with the established period of significance as 1880-1900 relating primarily to the onset, fluorescence, and decline of the Klondike Gold Rush. However, as the site history suggests, other periods of significance may be considered in the contexts of ethnographic history (potential Traditional Cultural Property recognition by Tlingit and Tagish groups) and twentieth century commemoration of the historic trail, beginning in 1961 to the present.

In the first instance, Traditional Cultural Property eligibility would be contingent upon consultation with appropriate native groups, and focused on associations rather than specific surviving resources, although archeological surveys in the future may indeed discover more physical evidence of pre gold rush occupation and use in the Taiya River valley. As the KLGO *Ethnographic Overview and Assessment* demonstrates (Thornton, 2004), native history of the Chilkoot Trail corridor and adjacent vicinity remains a powerful voice in the story of this landscape.

The potential extension of another period of significance to address the commemorative trail efforts beginning in 1961 by the State of Alaska and continued by the National Park Service to the present day would also recognize a part of the trail's landscape history. In this case, surviving resources from this period, as documented in chapter 3, Existing Conditions, are abundant—including major sections of trail alignment that do not date to the gold rush period, as well as all buildings, structures, and small scale features built after 1960. Few built structures from the State of Alaska's construction period survive, with the exception of the cabins at Canyon City and Sheep Camp, a few trail features, as well as the stone monument at the Summit. Nevertheless enough of this era's physical fabric remains to justify an expansion of the period of significance.

Integrity

Generally used as the benchmark for determining National Register eligibility, "historic integrity" in the case of the Chilkoot Trail is also inherent in its contributing listing as a National Historic Landmark. However, in this case, it is helpful to look at both the overall landscape context of the Chilkoot Trail in terms of the critical aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. Of these seven aspects, the most applicable categories are location, setting, feeling, and association, ones that remain relatively unchanged since the established period of significance of the Klondike Gold Rush.

In particular, the aspects of "feeling" and "association" require some explanation. "Feeling" is defined by the National Register (*National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*) as a cultural landscape's expression of the aesthetic or historic sense of a particular period of time. Association is the direct link between the important historic event or person and a cultural landscape. Both of these aspects, in particular, are critical to understanding the continuity of this landscape throughout a century of dramatic changes, particularly with respect to its physical appearance. For example, one might argue the case that although the Canyon City townsite has changed remarkably in its physical appearance, the contemporary use of the adjacent area as a campsite perpetuates both the "feeling" and "association" from this historic period. The same argument could

be made for Finnegan's Point and Sheep Camp. Other landscape areas, such as the trail above treeline and through Scales to the Summit bear an almost identical appearance to historic photos (with the notable exception of built structures such as tramway towers and camps), demonstrating more obviously the integrity of feeling and association.

With respect to individual landscape characteristics, this report will address integrity from the perspective of degrees of landscape change; in other words, integrity of each characteristic will be addressed, but only within the overall context of the landscape's evolution rather than a determinant of National Register eligibility, which is already unquestioned. Documented and listed as a component cultural landscape of the Chilkoot Trail Corridor in 2000, the Chilkoot Trail is a composite of "contributing" and "non-contributing" landscape characteristics when strictly defined through the perspective of local scale and correlation to the conditions during the period of significance, 1880-1900. In this view, "contributing" landscape characteristics include: natural systems and features, spatial organization, land use, buildings and structures (listed on LCS), and archeological sites; "non-contributing" characteristics would include circulation, views and vistas, vegetation, and small-scale features. However, as a whole, the Trail is a contributing resource to a National Historic Landmark; thus, at the largest scale, all its landscape characteristics have integrity and contribute to its significance.

Analysis and Evaluation of Landscape Characteristics

As seen in both the site history narrative description and the existing conditions graphic documentation, articulating the cultural landscape characteristics of the Chilkoot Trail provides a template for understanding the trail as a rich resource environment, varying in scale from larger systems to site-specific artifacts. The following analysis and evaluation of landscape characteristics provides a schematic introduction to the complexity of the trail's history and resources, and the levels of change between the "historic" period and contemporary conditions along the trail. In doing so, it will help to establish a baseline of information that should be used in the creation of a treatment plan to manage these resources.

Natural Systems and Features (Geomorphology, Hydrology, Topography)

Over the past century, the heavily sedimented Taiya River, which receives its primary runoff from glacial sources and annual snowpack, has continued to be one of the primary defining features of the Chilkoot Trail's cultural landscape. Combined with the surrounding glacial formations (some glaciers mentioned in historic period accounts are still visible) and the topographic rise from the Dyea flats to the Summit, the natural environment of the trail is one of a regional ecotone, a transition zone between the cool, moist coastal climate and the dryer, harsher lands of the Canadian Interior.

The alignment of the Chilkoot Trail has always been dictated by the natural systems of the Taiya River watershed: mountains, glaciers, main river course and its numerous tributaries emerging from higher elevations. Although the current recreational trail and the historic trail do not always coincide, they were both subject to the same set of environmental conditions: meander of the constantly rebraiding river, seasonal flooding which could be catastrophic, and the danger of avalanche on the upper reaches of the trail. Comparisons of major environmental events and their impacts from the late 1890s to the present day, as indicated by a recent hydrological study (Pranger, 1996), show the intense impacts of flood events, in particular, upon the trail corridor. [These large-scale scouring events also affected vegetation, which is discussed in a separate section below.]

Both current and historic alignments took advantage of the adjacent floodplain whenever possible, and were constricted in places such as the Finnegan's Point and the canyon. Historic resting, camping, and stopping places such as the head of canoe navigation, Finnegan's Point, Canyon City,

Camp Pleasant, Sheep Camp, Stone House, the Scales, and the Golden Stairs logically corresponded with the natural features of the trail corridor that provided spaces for human adaptation and use from the early Tlingit traders to contemporary recreational hikers. The broader areas along the trail within the floodplain were well-suited to provide areas for supply and more "permanent" settlements due to their proximity to the river as well as flat land capable of supporting population density. Finnegan's Point, now a campground, lies close to the head of canoe navigation, and was historically a location of a river crossing. Canyon City provided another functional camping site at its' relatively flat and open area at the mouth of the narrow Taiya River canyon. Sheep Camp was a relatively flat area near treeline, and Stone House, Scales, and the Golden Stairs were also sites in which geomorphic and topographic conditions dictated their use during the historic periods.

Based on the continuity of natural systems and features from the historic period to the present day, this landscape characteristic retains integrity and contributes to the significance of the Chilkoot Trail.

Vegetation

The overall vegetation pattern of the Chilkoot Trail corridor is an important part of its natural systems and features. As an integral part of the glacial riverine system as well as indicator of topographic change, several vegetation communities have characterized the trail environment throughout its history: riparian, coniferous forest, montane forest (above Sheep Camp) to alpine and sub-alpine at treeline. While their constituencies may have remained somewhat consistent with the historic period, no actual documentation of species other than narrative description of selected plants exists as a baseline of comparison.



This 1894 survey photo shows significant flood scouring occurred in the upper half of the lower Taiya River valley, most likely as a result of a glacial outburst in the upper Nourse valley. The lower half (below Finnegan's Point) of the lower valley was also scoured but not nearly as much as the upper half. When the water receded, a convenient pathway had been formed for movement up and down the lower valley. Compare this image with the 1970s era image on the following page. J.J. McArthur Collection, Library and Archives Canada, PA-162925.



1971 aerial photograph of the lower Taiya River Valley. Note the revegetation of the Islands in the section above (upstream from) Finnegan's Point, compare to the photograph on the previous page. Photo courtesy of Thomas R. Merrell, KLGO Research Library.

Despite this lack of information, there are several observations that can be made about the persistence and change of vegetation patterns along the trail. The major alteration to vegetation patterns prior to and throughout the historic period, and continuing to the present day was environmental in origin. Devastating flood events below the Nourse Valley confluence, estimated to have occurred sometime between 1883 &1887, dramatically scoured the lower valley's vegetation, depositing glacial debris throughout the floodplain (Streveler, 1995). Episodic flooding along the upper reaches of the trail, such as the Sheep Camp flood in 1897 originating from the western side of the valley above Stone House, would have also impacted vegetation. On the upper end of the trail, avalanches and rock slides also affected vegetation patterns, although the most famous avalanche (1899) occurred with a significant snowpack in place, and there are only a few stands of timber above Sheep Camp. These environmental events continue to the present day, (although we have yet to experience a catastrophic flood event on the scale of the pre-gold rush floods) altering the appearance of vegetation within the trail corridor.

In terms of the cultural landscape, there were a series of places in which use and occupation during the historic period constituted a major impact on the vegetation patterns. Most notably, these were areas of high traffic and population density, such as the camps where denudation of adjacent forest for construction and daily use created a degraded landscape, as well as the tramway lines, where the forest was clearcut to create pathways for passage. Although not as extensive in its impact, trail and log bridge construction also impacted both the appearance and composition of the riparian and forest communities in which these activities



Gold rush era photograph near Canyon City, note denudation of the hillside. University of Washington Libraries, Special Collections, Klondike 234.



Gold rush era photograph on the trail above the canyon, note denudation of the hillside and the 'scraggly' appearance of the trees, almost as if they have been damaged by fire. Yukon Archives, Anton Vogee fonds, #109.

took place. Trail clearing, corduroy trail tread construction, and the creation of log bridges in areas outside of the larger camps further degraded the natural environment. As with the camps, the forest denudation brought with it an increased vulnerability to erosion, particularly after high-water and flood events. Along with the construction of the trail and occupation of its camps, the impacts of daily use of a narrow transportation corridor by hundreds of travelers had to have been substantial, particularly when river and stream crossings were compromised and new routes had to be temporarily blazed through the adjacent areas.

Non-historic alteration to vegetation patterns occurred with the large-scale Hosford logging operation from Finnegan's Point throughout areas further south to the confluence of West Creek from 1948-1956. Hosford blazed a north-south logging road in 1948-49 in order to harvest commercial grade spruce trees; the operation created significant open areas which then reforested as second-growth understory, sub-canopy, and canopy vegetation. The question of integrity of vegetation hinges on the scale of interpretation. Within larger systems and features, the vegetation—even the second-growth forest below Finnegan's Point—would maintain its integrity dating to the historic period due to its continuity of composition and appearance. However, with the management of the trail and its resources in mind, a look at the more local scale of vegetation patterns—such as the trail alignment and camp areas—would indicate that vegetation does not retain integrity from its appearance in the historic period. This interpretation relies on the pictorial evidence of the denuded camp environs and sections of constructed trail shown in historic photographs compared to the contemporary period's unrestricted reforestation in which most of the trail below treeline resides. If the denuded landscape was deemed to be the baseline for the integrity of vegetation as a landscape characteristic



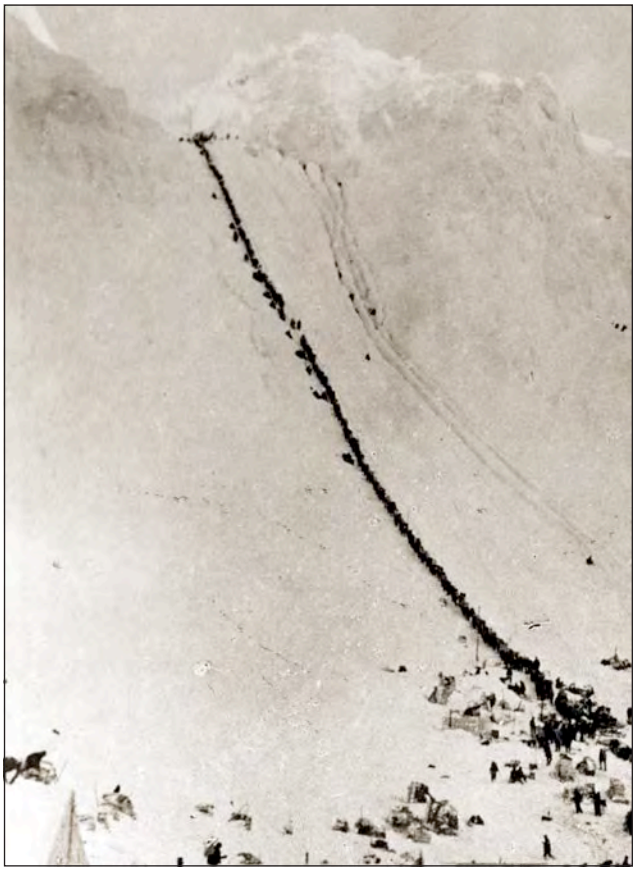
Gold rush era photograph on the trail above the canyon note the corduroy trail and the clear cut area for the tramway line. Yukon Archives, T.R. Lane Collection, #1382.

based on historic appearance, this would significantly impact how the park would establish treatment recommendations. Based on the local scale of contemporary vegetation distrubance, directly impacted by current trail use, and compared with its historic appearance during the period of significance as documented in historic photographs, vegetation as a landscape characteristic does not retain integrity, and does not contribute to the significance of the Chilkoot Trail.

Land Use

As seen in the site history, the Chilkoot Trail functioned as an important native trading route between the coastal Chilkoot Tlingit and the interior Tagish Athabascan for two centuries prior to the arrival of Euro-Americans in the 19th century. With the onset of the Klondike Gold Rush, the trail became the primary route to the Yukon goldfields between 1897-1898. Its use diminished with the completion of the White Pass and Yukon Route Railway over the neighboring White Pass in 1899.

Largely abandoned throughout the sixty years of the twentieth century, the trail corridor became the subject of intense interest for its commemorative and recreational opportunities beginning in 1961 with the State of Alaska survey. As the historic landscape was "rediscovered" by the general public through the State of Alaska's construction of the contemporary alignment, and then through management by the National Park Service beginning in 1973, new, but parallel, land use patterns emerged. With the exception of a brief period of commercial logging in the 1950s, the Chilkoot Trail's landscape shifted from a largely entrepreneurial and engineered industrial trail functioning to move large numbers of people and supplies from Dyea to the Summit and beyond into a trail largely defined by its recreational use. For the most part, the historic trail was heavily



Gold rush era photograph of the 'Golden Stairs in winter, c. 1898. University of Washington Libraries, Special Collections, La Roche 2132.



Contemporary photograph of the 'Golden Stairs' in July. S.L. Ferreira, NPS Alaska, Cultural Landscapes Program, 2008.

dominated by foot traffic, even with sections of river portage, wagon trails, pack horses and engineered tramways. Contemporary hikers are restricted to foot traffic at the present time.

Continuity in land use of much of the trail's historic landscape persisted through the creation of the trail alignment in the 1960s and through the present day. This land use has always been primarily focused on the trail itself as the major feature. Sub-areas of land use in areas of higher density, such as the supply and settlement sites—now NPS campgrounds except for Scales—also display an overall continuity of use as the logical stopping points for hikers along the trail: Finnegan's Point, Canyon City, Pleasant Camp and Sheep Camp. Other land uses that have their origin in the native trade route and continued in usage throughout the historic period include, Stone House, and Scales.

Despite its contemporary manifestation as a recreational/commemorative pattern of land use, the overall continuity of land use for the Chilkoot Trail as a transportation corridor remains consistent with its functional origins as a trade trail. The use of historic settlement or stopping places as contemporary campgrounds and interpretive areas continues to reflect the setting, feeling, and association with the historic period.

Spatial Organization

The linear corridor of the Chilkoot Trail, defined by the Taiya River glacial watershed (water course and adjacent mountains) has always existed as a "spine" along which the trail alignment and its associated features were traversed, built, and utilized. By necessity, the organization of spaces along this spine—from river crossings to large supply camps and settlements—focused on their proximity to the trail, availability of land for buildings and structures, and access to timber (to the point of treeline above Sheep Camp) for construction and daily use. Although the current alignment does not follow the historic trail tread throughout its entire length, the spatial organization evident during the historic period from 1880-1900 remains largely intact. Sites such as Finnegan's Point, Canyon City, Pleasant Camp, Sheep Camp, and Scales, for instance still constitute major points of arrival and departure for contemporary hikers, though with a much less intensive infrastructure than during the period of the gold rush itself (1897-98). Parts of the historic spatial organization at Canyon City, Pleasant Camp, and Sheep Camp are now lost due to the dramatic meandering of the Taiya River and its seasonal flooding patterns. However, the extent and dispersion of historic settlement and use at these sites more than likely included the general vicinities of these areas now used as campgrounds (with the exception of Pleasant Camp).

Even with significant portions of deviation from the historic alignment, the contemporary Chilkoot Trail retains its overall integrity of spatial organization—specifically in terms of location, feeling, setting, and association.

Archeological Sites

Arguably one of the richest historical archeological deposits in the United States, the Chilkoot Trail's archeological sites are one of its most important contributing landscape characteristics.

Park archeological studies of the Chilkoot Trail are an ongoing effort with investigations focused on both limited study areas during the summer seasons and as a part of Section 106 compliance in areas proposed for maintenance and construction work. Undoubtedly, new sites will be located and surveyed as a result of both efforts, adding to the wealth of known archeological deposits. This new information may be critically important in developing a more comprehensive history of native use and occupation of the trail, and completing our knowledge of the gold rush era use.

Much of the trail corridor has been surveyed, at least at a reconnaissance level. Several areas have received more in depth treatment through limited excavation such as parts of historic Canyon City, Sheep Camp and Finnegan's point. The only areas that have not had at least reconnaissance level archeological surveys are the more remote areas of the historic trail, such as the winter route through the canyon.



Historic Wagon Road Trace, Canyon City historic townsite. S.L. Ferreira, NPS Alaska, Cultural Landscapes Program, 2008.



Telephone pole artifact, feature of SKG-00231. S.L. Ferreira, NPS Alaska, Cultural Landscapes Program, 2008.

Even so, 80s era trail crew boss J. Watson recounts how he and seasonal hire Pat Moore made a trip through the canyon during the summer, and found numerous artifacts from the gold rush era (See Appendix C). While not an official survey, it did reveal that the canyon might be worth the effort, and someday will be surveyed by park archeologists. Other areas that have received little or no attention include the section of historic trail between Finnegan's Point and Canyon City. Another segment is that between historic Camp Pleasant and historic Sheep Camp, although a 2008 effort to reach and re-survey historic Camp Pleasant revealed new features enroute from Sheep Camp (Quinn & Gardner, 2008). Part of the problem is a lack of information as to where, exactly, the historic trail is, as much of the historic trail tread has been obliterated by flooding, erosion and vegetation reclaiming the valley floor. In these cases it has been a matter of finding extant trail segments, however difficult, and linking them together to reveal other possible areas for future



This area was the site of a gold rush era campsite (Stone House), and while it has recieved some reconaissance surveys, has yet to be surveyed in a systematic way. S.L. Ferreira, NPS Alaska, Cultural Landscapes Program, 2008.



Historic pack trail trace above Canyon City. S.L. Ferreira, NPS Alaska, Cultural Landscapes Program, 2003.

surveys. The other issue is access. Even when segments of the historic trail may be known, or at least suspected, the vegetation is so thick and passage to the site so difficult that these areas are often left for later surveys or bypassed altogether. Despite these challenges, park staff continue to make strides towards a complete archeological survey of the trail corridor.

Despite continued threats of severe environmental conditions (flooding, avalanches, erosion,) and the impacts of increasing visitor use, the known archeological sites of the Chilkoot Trail retain integrity and contribute to the significance of the trail landscape. The table on the following pages represents a general consensus by park staff of the major archeological sites within the Chilkoot Trail landscape. Other sites exist to be sure, but have yet to be officially surveyed and recorded.



Utility pole at summit probably used for both power wires and telephone lines. S.L. Ferreira, NPS Alaska, Cultural Landscapes Program, 2003.



Feature CT 160. This site was re-surveyed between Sheep Camp and Pleasant Camp on the west side of the Taiya River during the 2008 field season by park Archeologists Jim Quinn & Gavin Gardner.

Views and Vistas

Given the dramatic landscape of the Chilkoot Trail, rising from the Dyea Flats to the Chilkoot Pass, views and vistas are an integral part of the experience of the Chilkoot Trail. Many eyewitness accounts from the historic period note the views to distant glaciers, and the sweep of the terrain from Dyea northward through the Taiya River Canyon. However, as a landscape characteristic, views and vistas must be evaluated within the context of the landscape experience during the historic period; as such, it is difficult to assess the importance of views and vistas for the vast majority of the trail. Certainly the views north from Dyea and south from the

Archeological Site	Description	AHRS #
Dyea Townsite	Includes several sub sites within the townsite	SKG-00006
Chilkoot Trail	Linear Site, discontinuous.	SKG-00067
Kinney Bridge Site	Located on the east bank of Taiya River just across the river from the former location of the McDermott Cabin. Could also be known as North Dyea.	SKG-00227
Syrup Can Site	Non-historic name based on artifacts found at site.	SKG-00240
Hosford Sawmill	A 1946-1956 era non gold rush site	N/A
Dyea-Canyon City Wagon Road	At least 8 separate segments of wagon road are known including 2 segments that join the main road at an angle.	SKG-00236
Finnegan's Point	Gold rush era campsite	SKG-00009
Sunset Telephone Company Line	Linear Site. Sunset Telephone Company is the historic name. Multiple traces of this linear site have been found including at least 47 telephone trees, 63 metal utility poles, and many lengths of galvanized telephone wire.	SKG-00239
Canyon City	Gold rush era townsite	SKG-00090
DKT Aerial Tramway system	Linear Site. Includes the electrical generating plant at Canyon City (with boiler), at least 82 wooden utility poles of the DKT's Canyon City-Scales Power Line, remains of the DKT engine house at the Scales, at least one collapsed tramway tower located between the Scales and the end of the line, very fragmentary remains of a structure at the end of the line (CT418) which is located at the Summit near the folding canvas boats, and various tramway artifacts related to this line.	SKG-00231
CR& T Aerial Tramway system	Linear Site. Includes at least 25 features from the smoke stack at Canyon City, the collapsed tramway towers from Canyon City to Sheep Camp and then a second loop of collapsed tramway towers from Sheep Camp to Stone Crib, the second engine house at southern Sheep Camp, a couple of tension stations, Stone Crib at the end of the line in Canada, and numerous tramway artifacts related to this line.	SKG-00233
Pleasant Camp	Gold rush era campsite	SKG-00091
Mawville	Gold rush era campsite, based on the initials of the archeologist who discoverd the site.	SKG-00242
Sheep Camp	Gold rush era townsite	SKG-00092
Morris Choyinski's Grave	Since the name on this headboard has worn off (it may even be a 1960s era replacement board), there is uncertainty about who this individual is and the name is a best guess.	N/A
Stone House	This site is around or near a single large boulder. While several, individual rock shelters have been identified in the surrounding area, very little survey work has been done in this particular locale.	N/A

Table 1.0

Archeological Site	Description	AHRS #
Chilkoot Trail Rock Shelters	Eleven rock shelter sites around the Stone House and Long Hill areas. No known rock shelters occur within the specific locale also known as Stone House on the east side of the Taiya River. the entries below detail known rock shelters.	N/A
CT126	Rock shelter with pre gold rush and gold rush era artifacts (see also Fortini 1995 and Rasic 1998)	SKG-00148
CT131	Rock Shelter (Gold Rush)	N/A
CT141	Rock Shelter (Gold Rush)	N/A
CT143	Rock Shelter	N/A
CT144	Rock Shelter	N/A
CT167	Fallen Wooden Utility Pole (and small rock shelter containing piled, cut wood)	N/A
CT168	Rock Shelter (with hearth and charred, gold rush-era lumber)	N/A
CT176	Large Rock Shelter with Hearth	N/A
CT177	Fallen Metal Utility Pole and Rock Shelter with Hearth	N/A
CT190	Rock Shelter with Gold Rush Artifacts (Note: This feature was recorded as CT140 during the 1995 survey)	N/A
CT232	Rock Shelter with Small Hearth and Stacked Firewood	N/A
AR&T Aerial Tramway System	Linear Site. Includes at least 4 features from the AR&T power house on Long Hill, the collapsed tramway towers from their power house to the end of the line in Canada, structural remains at the end of the line in Canada, and various tramway artifacts related to this line.	SKG-00232
The Scales	Large area containing a number of sub-sites and a wide-variety of small scale artifacts related to the Gold Rush era.	SKG-00093
Archie Burns' Surface Tramway System	Includes wire rope and other related artifacts found at the Scales and on the Golden Stairs. It is not clear whether the boiler below the scales is associated with this operation. Artifacts definately associated with Burns' operation include the horse whim and the motorized hoist machinery at the False Summit, and the gasoline winch on a skid near the Summit and various tramway artifacts.	SKG-00230
The Golden Stairs	Area encompassing several sub-sites and a wide variety of gold rush era artifacts.	N/A
The Peterson Pass	Area encompassing several sub-sites and a wide variety of gold rush era artifacts.	N/A
The Summit	Area encompassing several sub-sites and a wide variety of gold rush era artifacts. Extends into Canadian territory.	N/A
Folding Canvas Knockdown Boats	This may actually indicate the terminus of the DKT tramway system, as it appears as if it was DKT freight that was never picked up once it reached the top –effectively abandoned at the end of the DKT line.	SKG-00234



Gold rush era photograph (cropped) of Saussure Glacier, looking up lower valley from approximately Kinney Bridge area, c. 1898. Yukon Archives, Anton Vogee fonds, #98.



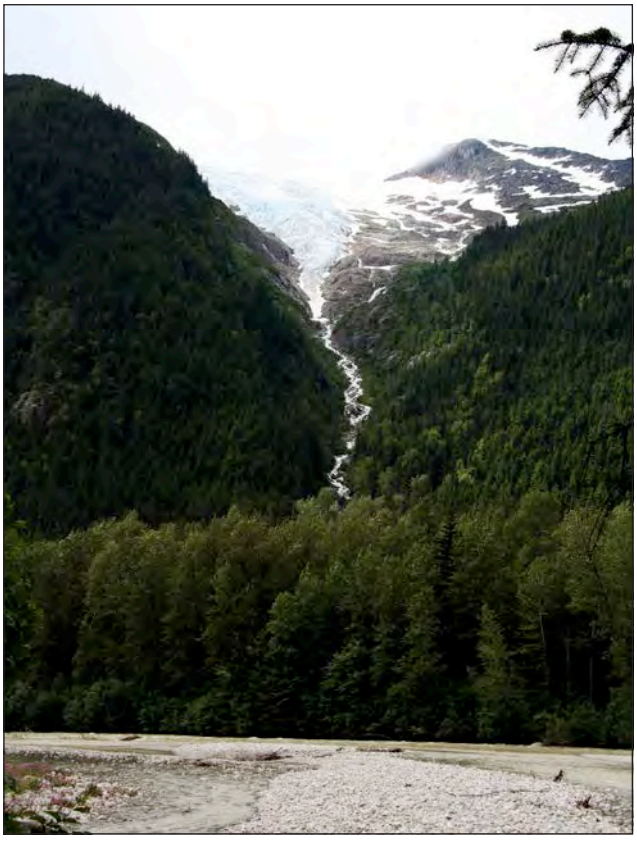
Contemporary photograph of Saussure Glacier looking up lower valley from the steel bridge. S.L. Ferreira, NPS Alaska, Cultural Landscapes Program, 2003.

Summit were integral, as well as other less panoramic views and vistas from tree canopy breaks along the trail, up the riverbed, and above treeline. But, for the most part, the Chilkoot Trail was a vernacular trail that developed from functional usage, without an intentional design to furnish specific views and vistas. Certainly the absence or presence of vegetation played a commanding role in historic viewpoints, and this again, is a difficult factor to evaluate given existing photographic documentation.

The contemporary alignment, in contrast, did have particular viewpoints from which views and vistas were "constructed" by clearing vegetation to allow hikers to see topographic features, such as at MP 1.4, West Creek valley and California Glacier and



Gold rush era photograph of Irene Glacier, c. 1898. Brigham Young University, Harold B. Lee Library.



Contemporary photograph of Irene Glacier, July 2008. S.L. Ferreira, NPS Alaska, Cultural Landscapes Program.



Stone House cache and campground, 1897. University of Washington Libraries, Special Collections, UW22056.



Similar view as above, July, 2008. S.L. Ferreira, NPS Alaska, Cultural Landscapes Program.

MP 8.6 to Saussure Glacier and Taiya Canyon. These constructed vistas were informally developed by the NPS trail crews in the 1980s to mid-1990s and have not been maintained; most of the existing views and vistas are naturally occurring. No formal treatment plan for the development of views and vistas has ever been developed for the Chilkoot Trail, beginning with the earliest State of Alaska construction in the 1960s and continuing through NPS management to the present day.

In this perspective, the comparison of historic and existing views and vistas is one that cannot be definitively analyzed and evaluated. While it is clear that this landscape characteristic was certainly part of the historic experience, and remains so for contemporary visitors, the role of views and vistas is one of non-contributing to the significance of the NHL. Despite this determination, views and vistas should be considered within the overall integrity of the Chilkoot Trail as an NHL, and treated as important landscape features in any treatment plan, particularly with their interpretive potential in mind.

Buildings and Structures

Known remains of buildings and structures constructed along the historic alignment of the Chilkoot Trail are located, for the most part, from Canyon City northward to the Summit. The trail's function as a heavily traveled route is evident in the structural remains of its associated camps and engineered infrastructure. Most buildings and structures, as listed in Table 1.0, indicate the range and extent of linear systems such as the telephone lines and aerial tramways designed for moving freight from Canyon City up to the Summit. Contemporary buildings and structures documented in Existing Conditions, chapter 3, are non-contributing features at the present time. If the periods of significance for the Trail are extended to include the development of the recreational and commemorative trail alignment, these buildings and structures will need to be reconsidered, as they are integral to the functioning of the contemporary trail. Of primary consideration would be the State of Alaska cabins. Another category of resources to assess would be the trail bridges, although the continual replacement of existing bridges (with the exception of the two suspension bridges) would be problematic.

However, site degradation due to environmental conditions, salvage, and theft over the past century resulted in the loss of historic buildings and structures. Also, many of the listings are also classified as archeological remains. However, because surviving examples are now recognized by the NPS List of Classified Structures as contributing to the Trail's historic significance, the landscape characteristic buildings and structures retains integrity and contributes to the significance of the Chilkoot Trail corridor cultural landscape.

Small-Scale Features

At this time, no small-scale features from the period of significance have been documented along the Chilkoot Trail. Based on the documentation of existing conditions, it would appear that very few of the trail's small-scale features were retained from the State of Alaska's construction during the 1960s. Notable exceptions include the stone monument commemorating the Klondike Gold Rush built at the Summit in 1968 by the State of Alaska, and a section of trail in the canyon (zone 4) that still retains some log corduroy features from this era. The remaining small-scale features seen today were constructed by the NPS trail crews between 1980 and 2009. These include interpretive and directional signage; stone steps, drains, and approaches; a variety of puncheons and turnpikes; plank crossings; and campground features such as bear poles. The current inventory of small-scale features is therefore largely contemporary in origin; in that context, they do not contribute to the historical significance of the Chilkoot Trail.

Since these small-scale features were built—and continue to be built—along the trail as a function of its commemorative and recreational functions, it is possible that some of the features may be important if the period of significance is extended to include these contexts. Examples would be the stone drains and steps, for instance, which have a greater potential for longevity than larger functional elements such as signage or puncheon structures



Historic trail through Flats area just below the Scales, c. 1898. University of Washington Libraries, Special Collections, La Roche 2038.



Contemporary trail through same area, July 2008. S.L. Ferreira, NPS Alaska, Cultural Landscapes Program.

and turnpikes. In addition, the ongoing design and maintenance of these small-scale features is an important aspect of a treatment plan, as the addition of new features to a historic landscape, regardless of scale, affects the landscape's overall historic integrity. Examples of these features in chapter 3, show the range of materials and styles now present on the trail.

Circulation

Assessing circulation as a feature of the Chilkoot Trail's cultural landscape is a complex endeavor primarily due to the fact that the "trail" in the historic period consisted of varying routes, depending on the season and environmental conditions. Additionally, the contemporary trail alignment, as discussed in the Site History, chapter 2, was largely the result of a State of Alaska survey in 1961 that had intended to map out the "historic" path. However, the trail that resulted from this survey was not based on archeological data, but visual evidence, (where it existed) and information from a local resident at the time. As a result, the current trail alignment has segments that correspond roughly to the historic period, such as a section between Canyon City and Pleasant Camp, where topography limited access for both historic and contemporary routes. In addition, sections above Sheep Camp, particularly from Stone House to the Summit, more than likely utilize historic tread, again, due to topographic conditions. However, larger segments of trail such as Saintly Hill, the Hosford logging road south of Finnegan's Point, and the trail north of Finnegan's Point to Canyon City, do not correspond to known historic routes. River crossings at Finnegan's Point, Canyon City, and near Pleasant Camp were historic features that do not survive in the contemporary alignment because of the desire to keep the trail east of the Taiya River floodplain.

Determining integrity based on historic conditions is also problematic in that the cartography of the trail during the historic period leaves room for varying interpretations as to exact location of the trail. Echoed in the KLGO General Management Plan's concern for identifying the historic trail, it remains undetermined in many areas, largely due to environmental conditions and limited access to archeological survey. In contrast, the contemporary alignment has continued to evolve from its initial survey and construction in the 1960s. The creation of spur trails (at Saintly Hill and Canyon City Townsite, for examples) and the necessity for trail reroutes as a result of flooding, bridge repair, slope erosion, and other environmental factors continues on a yearly basis.

The features and material finishes of the contemporary trail are similarly problematic. While there is some correspondence between the historic and contemporary character of the trail, seen in the use of log bridges as an example, there are only sporadic examples of surviving trail features from the period of significance, such as the Golden Stairs. For the most part, none of the features and material finishes of the historic period survive in the current alignment.

On the whole, then, the contemporary trail's circulation at the local scale lacks integrity with respect to the period of significance, the Klondike Gold Rush. However, if the trail is viewed not as a singular route, but at the scale of a "corridor," as well as the Trail as contributing to the NHL, several factors in determining integrity would apply, notably location, setting, feeling, and association. Seen in this light, the compatibility of new features and material finishes employed on the contemporary trail is a *critical consideration* for ongoing maintenance and future treatment as it affects the feeling and association of the historic landscape significantly.

Landscape Character Areas and Management Zones

In the process of documenting and evaluating the Chilkoot Trail, five cultural landscape character areas were identified as management zones. Rather than analyzing and evaluating landscape character and management zones as two discrete entities, this CLR focuses on a more synthetic view of the landscape by interpreting the two layers as a composite. Based on the correlation

of environmental and cultural forces that shaped the trail as a cultural landscape, the management zones, as follows, respond to the unique natural and cultural aspects of each distinctive section of the Trail. The identification of management zones prior to the documentation of existing conditions was based on the historic "breaks" in the trail at Finnegan's Point, Canyon City, Sheep Camp, and the Summit. A further refinement was the identification of zone 1 at Saintly Hill due to its unique elevational changes and non-historic function as a trailhead.

Zone 1: MP 0.0 (Trailhead) to MP 0.56

From its contemporary trailhead through the "Saintly Hill" section, this zone focuses on the initial ascent and descent of the trail on the eastern bank of the Taiya River. Its alignment was surveyed perhaps as early as the late 1950s by a local Dyea resident prior to the State of Alaska's initial effort at locating the original trail in 1961. This zone has no historic correlation as it was south of the Kinney Bridge entrance to the historic trail. However, its elevation above the river and floodplain provide a unique introductory experience for hikers with potential areas of viewshed and wayside interpretative development. Much of the trail through this zone is outside of the park boundary on State of Alaska land, however a memorandum of agreement between the State of Alaska and the NPS allows for NPS management of the trail through this zone.

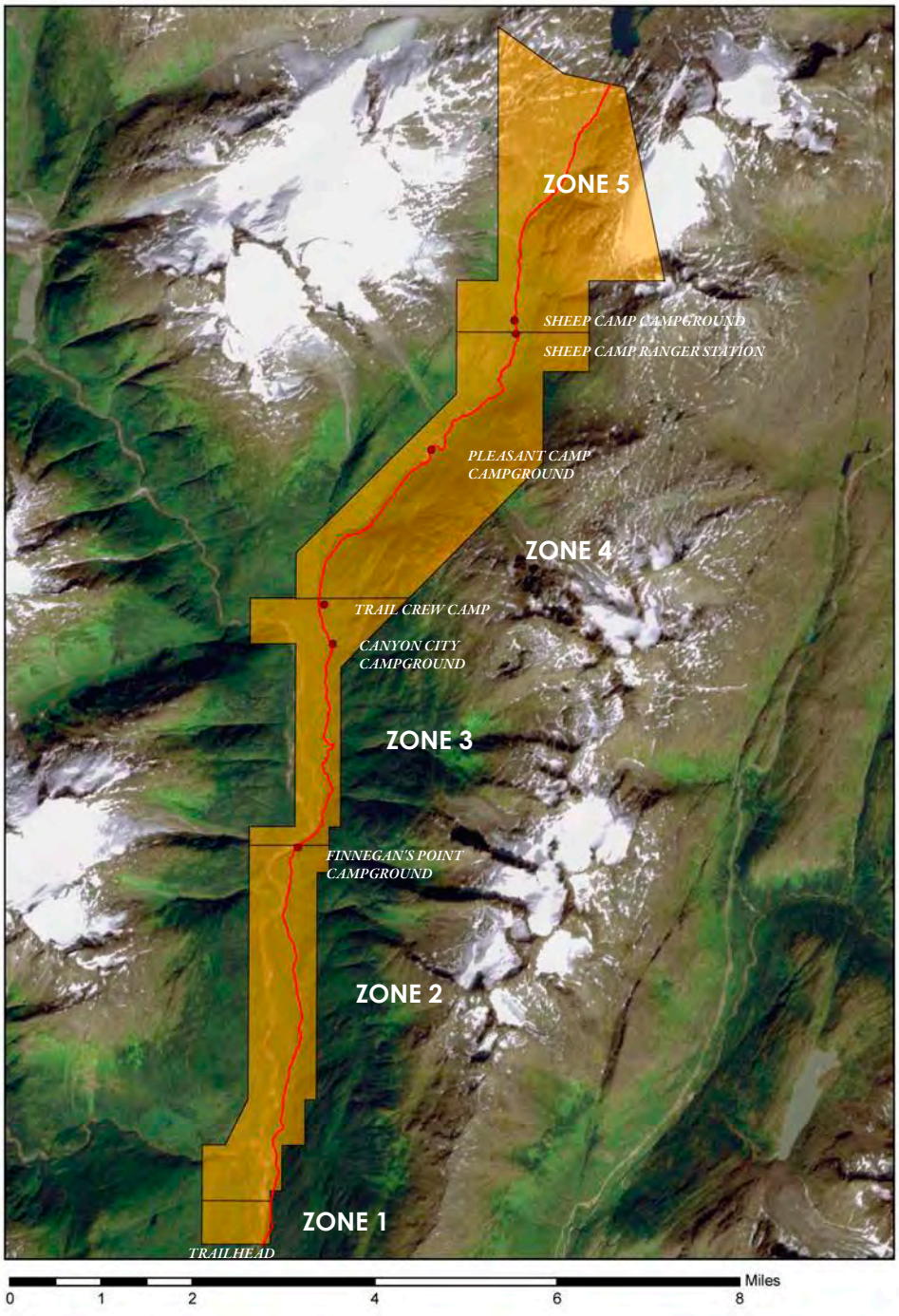
Zone 2: MP 0.56 to MP 4.96

Beginning just beyond the northern base of Saintly Hill, this section of trail roughly corresponds to the historic trail corridor of the period of significance. Although the current trail alignment is not historic—utilizing a pre-existing (1950s) logging road for much of its length—it may parallel historic traces from the gold rush era in places. This is particularly true at its northern boundary near Finnegan's Point, a historic supply station, tent camp, and river crossing area during the gold rush era. The gentle topographic rise of the trail along the floodplain, frequent flooding and the riparian vegetation characterize this section of the trail. Extreme hydrologic conditions, in particular, are a defining feature of this zone due to the broad, low-lying floodplain and the numerous tributaries, sloughs and overflow streams that meander through this zone.

Zone 3: MP 4.96 to MP 8.3

Leaving the Finnegan's Point area, the trail alignment through this zone ascends the eastern side of the valley rather than crossing the river to the floodplain. Historically, the trail crossed the river near Finnegan's Point to continue up towards Canyon City over what is essentially a series of islands between the Nourse and Taiya Rivers. Although its exact location is not known for certain, the 'head of canoe navigation', a historic landing and departure point for the earliest spring and summer expeditions up the trail, is surmised to be located just beyond Finnegan's Point, near to where the main branches of the Nourse & Taiya join. The contemporary trail alignment through this zone is not historic, although the zone includes the remains of the historic Canyon City townsite which is accessible by suspension bridge at approximately MP 8.0. This zone ends where the northern spur trail to the trail crew camp meets a stone step drain on the main trail, at approximately mile 8.3. The trail crew camp is located on the hillside about 800 ft. up the spur trail. Much debate occurred as to whether the trail crew camp should be a part of zone three or zone four, as landscape character would dictate that zone four should begin at the stone steps out of the canyon at Mile 8.2. Ultimately it was decided it is more appropriately a part of zone three, due to its proximity to the campground and the historic townsite, and the fact that the historic trail actually left the floodplain of the Taiya further upstream from the contemporary ascent out of the canyon. The trail in this zone traverses through a largely coniferous forest rather than the riparian-dominant environment of zone 2. The notable exception to this is the section through "Rock Garden," where the trail descends into an old floodplain, a remnant of a catastrophic flood event, and again when the trail descends back into the floodplain near Canyon City Campground at Mile 7.76. As with zone 2, the

Map 18


ZONE 5
SHEEP CAMP CAMPGROUND
SHEEP CAMP RANGER STATION
PLEASANT CAMP CAMPGROUND
ZONE 4
TRAIL CREW CAMP
CANYON CITY CAMPGROUND
ZONE 3
FINNEGAN'S POINT CAMPGROUND
ZONE 2
ZONE 1
TRAILHEAD
Miles
0
1
2
4
6
8

seasonally-intense hydrologic conditions of zone 3 heavily influence the character of the trail, with ten major bridge structures that cross stream tributaries from the eastern slopes of the Taiya River valley.

Zone 4: MP 8.3 to MP 12.68

Covering just over four miles of trail, this zone begins at the stone steps where the northernmost spur trail to the trail crew camp meets the hiking trail. The trail strikes over numerous hills and hollows high above the canyon that separates the upper and lower Taiya River valley, until it descends from the hillside in the vicinity of the historic Camp Pleasant crossing (MP 10.33) of the Taiya River. The alignment on this hillside section approximates a significant section of the historic trail alignment between Canyon City and the historic Pleasant Camp crossing, and thus, is a defining characteristic of this zone. This is particularly evident at MP 8.58 where a historic trace intersects with the contemporary alignment. The proximity of the historic and contemporary trails between MP 8.3 and 10.3 is easily explained by the physiographic character in this lower portion of zone 4; steep canyon walls dictated the alignment of the trail away from the riverbed and up onto the hillside. The historic trail crossed the river at historic Camp Pleasant in order to take advantage of the more level terrain on the west side of the river. The contemporary trail continues on the eastern side of the river, leading to Sheep Camp Ranger Station and the northern boundary of zone 4.

Zone 5: MP 12.68-16.0

The section of trail from just past Sheep Camp Ranger Station to the U.S.-Canadian border at the Summit covers approximately 3.4 miles. In many instances, the contemporary trail may be similar in alignment to the historic trail, especially the section from Stone House (MP 14.0) to the Pass, including the Golden Stairs. The beginning of zone 5 was also a topic of intense debate. The area just after the Sheep Camp Ranger Station was chosen because it is at this point that the landscape begins to transition. Historic Sheep Camp probably extended beyond this point up to and around the State of Alaska Cabin, however in the end landscape character, and the consequent management considerations associated with different drainage patterns and the character of trail tread, prevailed. A unique characteristic of zone 5 is the dramatic shift in terrain and vegetation due to a rapid rise in elevation as the mixed deciduous-conifer forests just above Sheep Camp transition to the alpine communities above treeline, creating dramatic panoramic views and vistas of the valley below, little changed from the historic period. The character of the trail tread also shifts, as it becomes more rugged, crossing boulder and talus fields. Numerous stream crossing also occur in the lower reaches of zone 5, necessitating a number of stream crossings over creeks that are often subject to radical hydrological fluctuations. Also of note is the area just past the State of Alaska cabin until approximately MP 13.0 which is an active avalanche zone. The terminus of the NPS-managed Chilkoot Trail occurs after ascending the Golden Stairs to the Pass and the Canadian Border, at which point management of the trail is in the domain of Parks Canada.

Developing a management strategy/treatment plan for the Chilkoot Trail will require an in-depth look at both the unique characteristics of each of the management zones within the context of the trail as a whole. For instance, developing alternatives for campground use at Canyon City and Sheep Camp are site-specific in terms of their planning and design, although the overall philosophy would be the same throughout the Trail. Composing a palette of signage, whether interpretive or directional, would require some site-specific information (such as appropriate locations), but would need to reflect a consistency in materials, finishes, and approaches from the trailhead to the Summit. This would also be the case for developing a palette of trail bridges, other buildings and structures, and small-scale features. The scope of work for the Chilkoot Trail's treatment plan can be developed with this information in mind as park management objectives dictate the range and extent of overall design guidelines in relation to the development of specific components—such as campgrounds and bridges—based on current needs.

Overall, the integrity of the Chilkoot Trail as contributing to the National Historic Landmark will be the key determinant in focusing on a preservation strategy and its implementation per the Secretary of the Interior's Guidelines. As we have seen, the aspects of location, setting, feeling, and association already apply in terms of the overall context of the Chilkoot Trail. Aspects of integrity that at present do not apply—"materials" and "workmanship"—will be a critical element in the treatment plan, as indicated above in the discussion regarding the development of design guidelines and material/structural palettes for new construction.

Conclusion

In cultural landscape methodology, the CLR typically seeks to describe the evolution of the historic landscape by analyzing its historic character and evaluating the rate and scale of change based on a documentation of existing conditions. The Chilkoot Trail CLR, Part 1 provides an overview of the various landscape layers present in the current resource environment through its site history; its analysis and evaluation based on landscape characteristics point to several preliminary conclusions that will affect the development of a treatment plan in the Chilkoot Trail CLR, Part 2.

First and foremost, the idea of a singular "trail" is a contemporary one based on the survey of a hybrid recreational/commemorative trail by the State of Alaska in 1961. Historically, the "Chilkoot Trail" was a braided network of paths contingent upon seasonal conditions (spring, summer, and winter routes) that dictated environmental conditions to which travelers responded (high river flow, flooding, avalanches, frozen river, among others). While at any given point in time there may have been sections of the historic "trail" that remained fairly stable in terms of use (such as trails in and out of Canyon City, Scales to the Pass, etc.), the vast number of Stampeders from 1897-1898 would suggest the creation of alternate—if ephemeral—side trails by travelers seeking the quickest and easiest routes to the summit. Thus, the idea of a historic trail corridor is, in all likelihood, more representative of actual conditions of use during the recognized period of significance. Treatment planning for the protection of the cultural landscape, therefore, would incorporate this idea to expand the scale of appropriate preservation strategies.

Secondly, the creation of the contemporary trail alignment by the State of Alaska (1961-68) and its management and rehabilitation by the National Park Service (1971-2008) bears an uneasy relationship to the actual "historic resources" that survive from the period of significance, 1880-1900. Tangible remains are almost exclusively archeological, and many remain hidden in the extensive vegetative cover outside the current trail alignment. In this case, determining the "integrity" of the cultural landscape may focus less on an analysis of surviving physical resources than on the recognition and protection of the landscape's overall character within the trail corridor. State of Alaska and NPS construction of trail tread and structures such as bridges, for instance, may or may not respond to the actual historic sites of water crossings. Much more discernible are the larger patterns of spatial organization, or nodes of activity along the trail that relate to its historic use such as the continued use of general camping areas (Sheep Camp, for instance) that date to the earliest documentation of the Tlingit trail. CLRs typically distinguish between management zones and "landscape character areas." However, recognition of the existing trail corridor as an integration of historic character and contemporary use and setting should be the objective of its treatment plan. Therefore, this report articulated five management zones that correspond directly with landscape character areas, rather than as separate entities. The documentation of existing conditions responds to this integration.

Finally, based on the landscape history and the analysis and evaluation, additional periods of significance or designations might be appropriate, thus strengthening the commemorative potential of the Chilkoot Trail as a cultural landscape. While few resources remain from the Tlingit ethnographic landscape (archeological?), it may be important to further characterize the trail corridor's origin as a Traditional Cultural Property. Another potential

shift would be to expand the period of significance to include the commemorative/recreational trail from 1961 to the present as an exception to the 50-year rule for inclusion. In addition to a rigorous application of the Secretary of the Interior's Standards for developing a treatment plan, a broader view of historical significance would respond to the ongoing evolution of the trail's cultural landscape, and the legacy of contemporary trail development in a dynamic natural and historic environment.

APPENDICES

APPENDICES

Appendix A:
Richard White's List of Artifacts in the Scales Area, 1959

Routing & rusting around the Scales we count pieces of canvas and other fabrics; shoes and boots of rubber & leather; a shoe tree; anvil, tongs, cable, ax heads, picks, stove parts (bodies, lids, grates); lamps, heaters; a homemade wooden bed frame, rusting wire and fragments of canvas tacked to the frame and rusty springs lying in the rectangle made by the boards; broken china, tea pots, kittles, wash basins, tubs; iron pipe half-submerged in water in the line of runoff from the snow at the foot of the pass ... six-inch iron pipe; tramway tower timbers, some still standing; broken bottles, the glass turned purple by the sun; an unbroken Mexican Mustang Liniment bottle; hundreds of tin cans, including what appear to be the familiar sardine can; pulleys, barrel hoops; coffee pots; stove pipes; coffee grinder; crowbar; pie pans, baking pans, bread pans, skillets; horse shoes, mule shoes, pack animal bones; cake tins; block and tackle; rotting rope; white enamel doorknobs on doors that lie rotting into the ground; grey enamel pails on which rust creeps up from the bottom; chunks of a soft sulphurous material; pan & pail covers; spikes, nails' fork, sugar bowl top; padlock; pieces of earthen ware jug' hinges' harness bits; wagon tongue; boiler; tramway windlass; grooved tramway wheel for cable; bolts; lard pails, buckets; fuel oil cans; window frames; two ax heads; two picks, one of them still having a handle, the other now without a handle, Seattle newspapers dated 1906... cables & wires of baling wire-size anchored in rock; roofs; doors, gables and building frames lying flat on the rotting floor planks of buildings, ferns growing from some of the flooring; sledge hammer head; stump chopping blocks; sled runner; big insulators of a design presumably no longer used, below the cross-arms, one insulator; four-foot iron power line poles cemented into rocks; a faucet; Arctic stove; Sanford ink bottle that held perhaps half a pint of ink; funnel, saw, file, carpenter's claw; tin cups; wooden bench; two iron cooking pots, one of them having an iron ring on its side that would provide a handhold for use when tipping the pot; a conventional-size ink bottle; eight-inch spike; mattock; iron rods for supporting aerial tramway freight buckets; crampons.

Appendix B:
Synopsis of The Chilkoot Trail: A Guide to the Gold Rush Trail of '98.

The beginning of the Chilkoot Trail is at the steel bridge across the Taiya River at about Mile 8½, Dyea Road... the trail is marked each half mile with small white markers beginning with Mile 0 and ending at present with Mile 16.0 near the foot of the pass. From the trail sign at Mile 0, one follows the east bank of the river, entering the woods some 100 yards away. Here one begins an immediate accent, considered by many to be the most tiring of any south of the pass [Saintly Hill]. Within the first quarter mile the hiker ascends to the 100-foot contour, than proceeds along it for the next quarter mile with such minor ascents and descents as are necessary to conform to the general topography. After passing Mile 0.5, the trail bears northeasterly, following a narrow, level trail through willow and other small growth, breaking out into a tree area having minimal undergrowth. For the next half-mile, the trail follows along the east bank of the Taiya River. Turning northeasterly again, it crosses a creek over a washed-out bridge supplemented with a footbridge, than pass over a recently de-brushed segment and joins the old logging road at Mile 1.6.

At this signpost the trail swings north and for the next three miles follows the old logging road; there are a few shallow streams along this segment that may either be waded or crossed on footbridges. Two structures remaining at an old sawmill site at about Mile 3.0 offer some protection from the elements for hikers. The next mile offers a continuation of the relatively level, slightly winding road between spruce thickets and a sprinkling of other trees. The trail begins a gentle ascent at about

Mile 4.0 that continues to the end of the logging road and beyond.

Next the trail reaches a section identified as "Finnegan's Point," for a quarter-mile or so the trail dips to the water's edge and follows the Taiya closely along a segment that still reflects early travel. Next comes a series of rises and descents as the trail seeks the best route around natural obstacles and avoids the steeper gradients on the last leg of the hike to Canyon City. On the trail near Canyon City, trees are mostly spruce and hemlock, with a sprinkling of cottonwood...the undergrowth is luxuriant, especially during August and September.

The mile south of Canyon City Shelter takes one through a variety of natural patterns, varying from level lichen and moss covered moraine where growth is sparse and small, to glens having large trees and relatively little undergrowth. Occasional ferns, bogs and muskeg require footbridges and corduroy sections to facilitate travel in this area. The shelter consists of a one-room horizontal-log cabin with a corrugated metal roof with overhang to form a porch. It is equipped with eight removable canvas-bottomed bunks, rough table and benches, a wood burning stove that provides heat with minimal cooking capacity. A pit-type log privy is situated about 100 feet from the cabin. The cabin has wood floor, and three windows. A picnic table with fixed seats, and an outside fireplace or stove, is located between the shelter and the river. Up the trail about a quarter-mile to Mile 8.15 a footbridge crosses the Taiya River into the Canyon City townsite, said to have had some twenty wooden structures, tents and half-tents, including restaurants, hotels, saloons, stores, repair shops, a steam-driven electric power plant, and other facilities. Remaining artifacts include a boiler, stoves, wagon and sled parts, hardware, utensils, wagon wheels and rims. Traces of one of the wagon roads bisect the site and proceed southward to an early crossing of the Taiya.

Proceeding over level ground through the woods north from the Canyon City Shelter, one parallels the Taiya River, but one is usually out of sight of it by twenty to thirty years until reaching Mile 8.15 (the turn-off to townsite). It is best at present to return to the main trail before proceeding to Sheep Camp, although plans for a footbridge to be installed at the northern limits of the ruins will tie in with the old trail segment from the east that now terminates at the river.

Just past Mile 8.15, the trail veers east and passed over fairly steep ascent, then commences a half-mile upgrade stretch to reach the altitude necessary for passing along the eat rim of the Taiya River canyon. A short distance beyond the steep climb, the rail joins the old Summer trail which still bears ample evidence of use by thousands during the stampede. During the winter months of those times, when the Taiya was frozen, it provided the easiest route through the canyon to Camp Pleasant, where a horse bridge recrossed the river.

For the greater part of the climb to gain altitude, the trail passes over moss and lichen-covered granite outcroppings which are generally smooth, thus minimizing the labor of the ascent. In this section, the hiker begins to encounter occasional telegraph poles, some virtually intact, with miles of galvanized iron wire laying on the ground. For the next two miles, the trail parallels the eastern rim of the canyon. Short stretches of old corduroy trail sections in varying degrees of deterioration can seen in this area, along with some fairly well preserved abutments and portions of a bridge. After passing the northeastern end of Taiya Canyon, the trail descends to the stream bank and winds gently upgrade for a mile or two through a wooded valley. The trail in this section is slightly rerouted from time to time to seek the best crossings of tributary streams and the frequently shifting channels of the Taiya itself. As in the past, bridges today are generally one or two felled trees.

Until recently, the final approach to Sheep Camp Shelter was via the modern trail which passed the shelter to its left and proceeded through the bush, broke out onto the rocky river bed, and followed this for perhaps a mile before veering west. In 1966, the ole trail section was discovered, and the trail has now been rerouted to cross in front of the shelter, crossing small stream and proceeding northerly to join the old trail. The shelter at Sheep camp is a

virtual copy of the one at Canyon City, excepting the table that is a relic from one of the old Sheep Camp gambling dens, with the dealer's station clearly identifiable from the contour of its top. A stream flows with fifty feet west of the shelter and is a source of good water. The Chilkoot Pass is four miles up the trail.

Crossing the creek at the shelter one proceeds north over a well-worn course pursued by many goldrushers in earlier years. One becomes quickly conscious of the increase in grade as the altitude increases over a winding trail which passes through occasional small ravines, or along the crests of ridges. The trail bypasses boulders left from earlier upheavals, and generally seeks the easiest route over the rises and descents. For the first mile, there is a generous sprinkling of trees among the small growth, becoming more sparse as altitude increases until plant life occurs only along the small streams.

Near Mile 15.0 one comes upon two huge slabs of rock, one leaning against the other, called the "Stone House," since the configuration affords some protection from the elements. At Mile 15.2, one comes to the first ruins of appreciable size, a structure that may have served as a tramway office, restaurant, or small store. In traveling on the Scales at the foot of the pass, one has the choice of proceeding along the stream or of moving directly from the ruins along a series of shelves and broken ridges. The best route depends upon snow conditions and individual preference.

At Mile 16.0, there remains the ruin of a tramway building and another unidentified structure. Artifacts found in this section include, horseshoes, mule shoes, spiked creepers, remnants of harness, old cable, galvanized telegraph wire, utensils, kerosene lamps, axes, shovels, tram parts, and where protected, items of discarded clothing.

In choosing the route of the final ascent, the current weather, visibility snow conditions, along with personal preference are the determinants. Most pictures of the Chilkoot Pas ascent taken during the winters of 1897 and 1898 show the one having steps cut into the ice and snow. In mid-summer, when the snow on the route has melted, the scree extends almost all the way. The route to the right of the "Golden Stains" is somewhat longer, less steep, and is considered safer by some. This route is generally known as the Pettersen [sic] Trail, and was used extensively by dogteams and pack animals. To the left of the stairs, the route is not well-defined and should not be undertaken during periods of poor visibility—it consists of a series of ledges, scree ascents, and short ridges.

Appendix C: J. Watson Interview Transcript, July 15th & 16th 2003. Interviewed by S.L. Ferreira

Ferreira: Alright Watson. This is the Watson and Sam Ferreira interview on...

Watson: ...what day is it?

Ferreira: ...this would be Tuesday...

Watson: the 15th of July.

Ferreira: ...July 15, 2003 and we're...

Watson: 2003.

Ferreira: ...2003, we're going to give a little background information on Watson and his [uh] Watson and the art of trail building.(laughs)

Watson: Yeah right (laughs), the art of trails... so I started in 1973 at Rocky Mountain National Park there weren't trails the first year...

Ferreira: It's in Montana?

Watson: It's in Colorado.

Ferreira: Colorado.

Watson: ...I worked trails there '73, '74 and then [uh, uh] a little sideline here. (laughs)And then they said "either cut your hair, shave your beard, or don't come back."(laughs)

Ferreira: (laughs) So you didn't come back?

Watson: So I never went back. (laughs)And [I, like] three of us were asked to no longer be affiliated with that park.

Ferreira: O.K.

Watson: ...so then I went from there to Sitka in 1975 where I [uh] built the trails there at the Historic Park.

Ferreira: And as far as... learning the craft goes...were there, were there any....

Watson: I started in '73 working with the crew and just [uh] working mostly on this trail construction [um] and, you know, hand brushing and [uh] drainage and [uh] just the general, I mean I was a laborer...

Ferreira: Sure.

Watson: ...and then when I went to Sitka in '75, I was the [uh] foreman, but there's only two people...

Ferreira: hm.

Watson: ...so it was a two person crew.

Ferreira: So how did you get your... how did you learn, how did you learn how to do this stuff?

Watson: Just learned basically on the job, just a work in progress, [uh] this guy named [uh] Jim Stansbury (sp?) was my first foreman and he taught me everything I knew about, from that period.

Ferreira: This guy was from Sitka or from...?

Watson: No this guy was from Colorado...

Ferreira: O.K.

Watson: ...he was a teacher from Colorado Springs. But then I went to... I decided I didn't like it in Sitka because it rained all the time...

Ferreira: (laughs)

Watson: ...and I wanted more real trail building...

Ferreira: Right.

Watson: ...so I went to [uh] Rocky, [uh] I mean I went to Glacier National Park in 1976, and there is when I started working with this master bridge builder.

Ferreira: Bridges or trails in general or...?

Watson: Well we had, we had a district, we had the... we had the two medicine district in the in [uh] Glacier...

Ferreira: O.K.

Watson: ...and then we built [uh] these small suspension bridges, nothing like we see on the trail here. And a couple of them were pretty.., the, the first year I worked there we just built a couple small bridges but a lot of log bridges were built [unintelligible...]

Ferreira: using Native materials...?

Watson: Yeah, we couldn't use [uh], it's because it's a [uh] wilderness park, we couldn't use any power tools.

Ferreira: Really? Interesting.

Watson: ...yeah, so everything we built was with an axe and [uh]with a cross cut saw...

Ferreira: interesting...

Watson: ...no easy, easy task. And we had lots of windfalls there so we had to cut hundreds of trees off... all by crosscut,.. so in '75 and '76, I mean, that was '76,.. in '77 I got my own crew at a place called Goadmont (sp?)...

Ferreira: This is at Glacier...

Watson: That's at Glacier as well. And so that was only a two person crew and my job there was basically to keep open the gunsite pass which is a snow covered pass, there's a lot of avalanche danger, so we used to have to cut a trail across the snow fields.

Ferreira: Hm. Just cut a trail? Just blaze a trail?

Watson: Yeah well we literally cut through the snowbanks...

Ferreira: So you'd have this...

Watson: ...yeah so we'd have, so we'd have to cut a trail, along the slope 'cause it was along the slope...

Ferreira: Oh,.. the drifts you mean... so it ripped out... and you'd cut through the drifts

Watson: Yeah, yeah we cut, but we'd end up cutting trail all through these snow banks... it took us all, took us most of the summer just to cut the trails through.

Ferreira: Interesting...

Watson: Yeah and then as the snow melted out, it was really steep and too dangerous for people, really steep slopes...

Ferreira: Sure. So when did you come to Skagway?

Watson: Well I mean, this is the following year, '78, I started my own crew, I took over a four man crews, large construction and maintenance crew, in the Belly river District (sp)...

Ferreira: Where is that exactly?

Watson: ...that's in, that's right on the Canadian border, that's at Glacier...

Ferreira: ok..

Watson: ...and I did that for two years.

Ferreira: O.K. I gotcha.

Watson: ...and that year they contacted me about working here at at the Klondike.

Ferreira: O.K.

Watson: So they, I got offered three jobs here (in AK.) I got offered a job at Wrangell, and one at Ketchican, and one here at the park (KLGO), but the other two were Forest Service jobs.

Ferreira: And why'd you come to Skagway and...[uh]...

Watson: Well I came to Skagway because of the challenge of rebuilding the Chilkoot...

Ferreira: Yeah. You'd heard about it, you'd known somebody...

Watson: Right, I knew an old friend of mine who'd worked up here and he was on that first crew in Denver I told you about [unintelligible words]

Ferreira: Right, I just read something about him... OK, go ahead.

Watson: So I started here in 1980. I came up to [uh] came up to Skagway, drove up my little Volkswagon all the way up. Came into town and I figured out that very moment that I had really screwed myself (laughs)

Ferreira: (laughs)

Watson: 'Cause all the buildings were boarded up... so they'd take me to... the Park Service takes me to my house...

Ferreira: uh-huh.

Watson: ...which was then "Burboweatys"

Ferreira: "Burboweates"?

Watson: Burboweatys is that first building as you go in, it's where the little [uh] it's where the little cribs are at in the ally.

Ferreira: Gotcha. O.K.

Watson: So [uh] we, we, they'd take me in there and [uh] (coughs) and a front window -- so I walk in the building... 'cause this is your house... so I walk in [unintelligible] so he shows me my room. Well the front window had been knocked out, and so they had stuck a plywood over the window.

Ferreira: (laughs)

Watson: ...and there was glass all over the bed and there was, and there was dirt, there was no lights, and I went, 'you gotta be kidding, I'm not gonna live in this.' So they go 'Oh, O.K. well you can live in [uh], you can live upstairs.' So upstairs at the Burboweatys, that was my first room.

Ferreira: Right.

Watson: So I lived up, lived upstairs and I couldn't figure out... I couldn't figure out why it was always so cold in that room

Ferreira: (laughs)

Watson: ...and so I [uh] so the wind just blows through

there so they had this big picture on the wall, so I pulled the picture off one day to clean the room, and there's this huge hole...

Ferreira: (laughs)

Watson: ...that that the wind had been blowing right through there 'cause they, they just had a big hole in the wall, and they stuck that in there.

Ferreira: So that was your first accommodation in Skagway...

Watson: That was my first accommodation, so that when I first work...walked up the trail there was no camp, there was no base camp, there was a tent shell, tent frame that said "Sheep Camp."

Ferreira: Camps... sort of style...

Watson: Right, with wooden, with wooden [uh] frames.

Ferreira: O.K.

Watson: Two of those, there was [uh]...

Ferreira: The cabins were or were...were not there?

Watson: No, it wasn't... the log cabins were there, those are state cabins.

Ferreira: Right, right, right. But as far as like trail crew cabins... none of that stuff was there

Watson: No there was no trail crew cabin. There was no trail crew camp at all, [uh] there was a, there was a campsite at the, at the sawmill...

Ferreira: O.K.

Watson: ...and there was a camp, very rudimentary, they had one little outhouse. Um, some of the clearings, then they used to let them have, put their tents out on the sawdust piles...

Ferreira: Sawdust piles, right. How was the, the Hosford cabin was, was nearby there?

Watson: The Hosford cabin... ?

Ferreira: Yeah...

Watson: ...something like that old, old funky cabin?

Ferreira: The old funky cabin.

Watson: Oh yeah they've already, that had already started to fall apart.

Ferreira: Um, what about the general condition of the trail?

Watson: Well, let's go, let's do some...

Ferreira: O.K., go ahead

Watson: ...let's go from that point from, O.K. Finnegan's there was nothing, there was just a campsite. And from there you go into [uh] Canyon City which of course was the shelter.

Ferreira: Right.

Watson: ...and [uh] there were only a few sites there that were really well maintained. Were maintained at all, and then from there, there was Pleasant Camp. And Sheep Camp was at, was at its old site...

Ferreira: Where the cabin used to be...Right. O.K.

Watson: So the trail...was completely grown over...

Ferreira: Yeah.

Watson: ...Um... that, it had never really been brushed to any degree. The [uh], the first part of the trail there was, there were no drains, there was no drains at the beginning...[uh]

Ferreira: Below Finnegan's...

Watson: No, that was all, you had to, to use a, take off... remember when you'd come down the hill that, Finnegan's hill down to the river...

Ferreira: Um hm.

Watson: ...before you hit the plain, and you're going down... you'd have to take off your boots... just past that point, whenever it rained, well even when it didn't the water was anywhere from a foot to four feet high...

Ferreira: [unintelligible mumbling]

Watson: ...so you'd have to walk almost a half a mile through with no boots...when it was high water.

Ferreira: Had they ever attempted to deal with that?

Watson: No.

Ferreira: Huh.

Watson: No drains whatsoever, it just was a, was a...

Ferreira: No turnpikes, no nothing like that?

Watson: Nothing.

Ferreira: Huh. Interesting.

Watson: And what has happened there many times over is the fact that [uh], is that the water changes courses all the time, so, but there was, you know, there's, there were no bridges through there, there were a few, there were... no, no that, that's not true, there were two bridges. Well let's start at the, we'll start at the first part of the trail. The first part of the trail as you went up, there were no steps as you started...

Ferreira: Saintly Hill.

Watson: ...so it was pretty much...

Ferreira: Rocks.

Watson: ...rocks, slick rock. And then, you just kinda went over the top and then on the bottom end, that sluffed off quite a bit and you just kinda had to pretty much, get...

Ferreira: Make your way

Watson: ...make your way down through the... soon as you hit the bottom of the first hill, all that's a flood plane as well, so there were no drains along there either, so, we built all that up...

Ferreira: Hm.

Watson: ...dug drains through there.

Ferreira: What about the existing... bridges and stuff? What kinda condition were they in?

Watson: Well the first bridge we came to was where the the stairway to heaven bridge is at now.

Ferreira: Right.

Watson: ...so what they've done there, is there was a big tree... that they [uh], spruce tree, that they had just cut it, dropped it acrossed, and that was it. And then they had leveled it off somewhat. But there was quite a, quite a deviation in slope there, there's quite a, quite a difference in feet, ten, nine feet...

Ferreira: O.K.

Watson: And they'd built that up a little bit but it's, it's pretty much on an angle, you're walking downhill and across it and it was slick as sh#*.

Ferreira: Alright.

Watson: So that was the first bridge that you came to, now where the...

Ferreira: It was just the tree itself or did they put stringers on it or anything like that, or..?

Watson: No, those, the tree was the stringers

Ferreira: I see.

Watson: So they had leveled that...

Ferreira: I mean not stringers, excuse me, decking.

Watson: ...and they had a very rudimentary [uh] handrail that, that was...

Ferreira: So there was decking over the, over the spruce tree...

Watson: No, they'd just cut the deck right out of the log

Ferreira: Flat, so it's a flat log...ah I see. Gotcha.

Watson: Yeah. They leveled the log out.

Ferreira: Gotcha.

Watson: So where "Boomerang" is now, or was, the old Boomerang, there was no bridge there, you just kinda walked through that little slew there. But at that time the river was quite a bit further out there...

Ferreira: Further in...

Watson: Yeah, you could walk further out there

Ferreira: or west.. Yeah.

Watson: Um. [uh] So then as you went up, then as you got to the mile and a half bridge there was a bridge that had been put in two years previous to that. And [uh] that bridge was washed out 1980... 1981. The old bridge, the, the first log bridge that was put there. So that had been put in by Skip Elliott, Wayne Greenstreets and other guys in town here. And it was a relatively good bridge, it was a couple stringers, a couple of squared cribs they hadn't cut the prow(?) and the [uh] to deflect the flow...

Ferreira: Right.

Watson: ...it was a square box which is a bad, which is a bad design feature.

Ferreira: Gets washed away quicker.

Watson: Right. And that, and even the one I put in there that [uh], it scoured it so bad, that we didn't have enough rock to protect the front. So that bridge was there, and then as we, as you went out to the next piece, the next section, as you crossed that bridge, we used to walk back and then you'd hit the main road there, the old road. Well at that time the road was a lot, was a lot wider than it is now because they'd cut the, because they'd been using a relatively, you know, they still drove up there in those days...

Ferreira: Sure.

Watson: ...you know they'd drive across the river...

Ferreira: Um hmm.

Watson: ...and we did it, we did it as well as the trailcrew...

Ferreira: So you can drive pretty much up to Finnegan's, couldn't you?

Watson: You could drive all the way to Finnegan's...

Ferreira: Yeah.

Watson: Now it's as far as you can get.

Ferreira: Yeah. O.K. And there was an airfield up there I believe?

Watson: Yeah, the airfield was, south of Finnegan's

Ferreira: Right, just past the cabin and the sawmill and all that...

Watson: So now its, its... you keep going further, you walk that long road and you take a, take a...left

Ferreira: And it's right next to the road...?

Watson: Yeah, it's, you know that one nice section there? It's kinda of [uh], there's some nice [um uh], lichen and moss off to the left...

Ferreira: Right.

Watson: ...it's kind of...they used to be really open...

Ferreira: Right.

Watson: So that used to be an airfield. Pat Morris's father told me about it... that he had landed his plane actually, been in a plane there...

Ferreira: Hm. O.K.

Watson: I wouldn't to hell have wanted to land a plane there.

Ferreira: No.

Watson: But if you look at those old photographs, you know, it used to be a lot more open than it is now.

Ferreira: A lot more open, indeed. Alright, well...

Watson: So then as we went, as we go north, from that point, um, the next bridge that we came to was [uh], it was right there by sawmill...

Ferreira: O.K.

Watson: ...and it was just [uh] two old cottonwoods with birch rounds nailed in...

Ferreira: (laughs)

Watson: ...slick as sh#*, two feet above the water, you know it was, no, no sub-grade sills, nothing.

Ferreira: Yeah, failure.

Watson: Yeah, so and that's pretty much the character of almost all the bridges except for two, maybe three bridges that were well constructed, the rest of them were made out of cottonwood and birch.

Ferreira: Talk about the, the good ones, let's hear about those.

Watson: Well the best one's that mile and a half bridge...

Ferreira: O.K.

Watson: ...and then there was a decent one put in at ten mile that had [uh] log, log stringers, 3 x 12 cedar decking, and a system of really poorly designed handrail...

Ferreira: O.K.

Watson: ...not a good place to have a handrail on that bridge...

Ferreira: Now ten mile is where [uh]...

Watson: That's the waterfall.

Ferreira: O.K. Gotcha.

Watson: So those were the only two bridges that were [uh], had any sort of design significance... and that weren't just [uh] crap...

Ferreira: Just fallen logs...

Watson: ...because I mean literally, literally most of the bridges you'd walk across and they'd go kinda like this because they wouldn't, they'd use the [uh]... well you know cottonwoods, you can't, it's hard to find a straight cottonwood...

Ferreira: Yes, indeed.
Watson: ...so one side would be up like this and the other side would be down like this.

Ferreira: Right.

Watson: ...and so they would set them on a grade, so there'd be no, no sills...nail 'em together...

Ferreira: Not a lot of space between the water and the bridge...

Watson: Well they'd just go from the bank, from one bank to the other... and usually what they'd do is just drop a tree right acrossed...

Ferreira: Shave the top off, put a handrail on...

Watson: Yeah, and they'd put, they'd put a lot of these, they put a lot of birch round bridges on there.

Ferreira: Hm.

Watson: Which is really slick as sh#*, really dangerous stuff.

Ferreira: Yeah, yeah.

Watson: But all the, all those bridges, [um], were pretty much of that construction type. Until you got to [uh], well even the bridge at six and a half mile, which, when I got, when I started there in '80, that, that creek, coming down that street, coming down, was probably a fourth the size that it is now, so...

Ferreira: Hm. Interesting.

Watson: ...and the bridge there was no more than 18, maybe 24 inches above the stream. And it was made out of... same stuff. Cottonwood and birch, and the, the deck was probably around 6 feet wide. All nailed down, just tight birch, rudimentary hand rail, crap.

Ferreira: Hm.

Watson: You know, no sub-grade, no protection, whenever the water came up it just pushed it...

Ferreira: Pushed it down...

Watson: Pushed it down, down stream. Now when you got to the next [uh] now the next bridge where, [uh], which is [uh] the rock garden, there was just a rudimentary bridge there as well, it was pretty much [uh] on the low bank, it didn't go to the high banks, and whenever the water came up it just flooded over the top of it.

Ferreira: Flooded over the top...

Watson: So that's sort of the design features that you

saw, there was nothing, I mean I was coming from Glacier, where we had really, we had strict maintenance guidelines, we did really good work and standards and the crew worked their butts off... and we moved around, we had spike camps 'cause I had 100...157 miles of trail in my section alone...

Ferreira: Wow.

Watson: ...so we were, I was responsible for way... we could never get all, all in one year...

Ferreira: Right, right, right.

Watson: So coming here you just think 'well I've got 17 miles man big deal' and now, there's more work in two miles than there was in a hundred miles there...

Ferreira: (laughs)

Watson: ...but it, there are no design guidelines, there'd been no [uh] systematic sequence of brushing, there had been...

Ferreira: Well, it was constructed by amateurs...you know...

Watson: Yeah, absolutely, and they had, they had used [unintelligible] inferior materials. I mean, you do not build a bridge, a structural bridge, from cottonwood.

Ferreira: Right.

Watson: Unless you're desperate.

Ferreira: Unless you're desperate.

Watson: And they didn't [uh], and, you know, in their defense they probably had no money.

Ferreira: Well and, and, no, very little experience.

Watson: Now, at the same time there were a lot of the bridges built [uh], more like corduroy, built in the '50s that were, what they did, they would lay their stringers, say across a small ravine or something, and then they would lay another layer of stringers, and then they would lay another layer of stringers and then they would cover it, what they would do is they would just keep stacking 'em on top of each other...

Ferreira: O.K.

Watson: ...and then they would put on birch, they would cut the birch rounds and put that as their deck and then they would throw mud on top of that....

Ferreira: So you got this earthen...

Watson: ...yeah you got this earthen, yeah pretty much just an earthen dam, essentially...

Ferreira: (laughs)

Watson: ...so the biggest bridge on the trail at that time was at Canyon City. That was the suspension bridge...

Ferreira: Now this is the one going across to the...

Watson: ...to the townsite...

Ferreira: ...to the townsite.

Watson: ...and it was a piece-of-crap.

Ferreira: So it was already built when you arrived?

Watson: Well the first one, the first one.

Ferreira: Yeah.

Watson: But it really wasn't a suspended, well it had one, it had two three quarter inch cable...

Ferreira: Um hm.

Watson: ...they used as dead heads, two old dead cottonwoods that they had buried in the ground about four feet, the towers were about, oh, 14 feet high, they had one main suspender cable, and they had two cables under, underlying the cables, and he had [uh] 2x6 decking. And that thing swayed all over the place...

Ferreira: (laughs)

Watson: ...and as soon as I got to the trail, as soon as I got to that bridge and saw how it was constructed, I mean they had, the cable came over the top, they had cottonwoods as, as tower, as the tower braces for the cable...

Ferreira: O.K.

Watson: ...there was no saddle for the cable, so the cable just dug right into the wood...

Ferreira: Right into the wood.

Watson: ...so I, I immediately closed that bridge as a hazard to traffic...

Ferreira: (laughs)

Watson: ...and [uh], because it was dangerous...

Ferreira: Sure.

Watson: ...so I just said, we can't, we can't use this bridge... I mean it was barely hanging on. So what we did is [uh], we dropped a couple of big [uh] cottonwoods that were on the bank...

Ferreira: Um hm.

Watson: ...but that was the following year...

Ferreira: O.K.

Watson: ...we dropped those, Roy and I dropped those and then put a temporary bridge there until we started. We used that until we started construction on the suspension bridge...

Ferreira: So you started in '79...

Watson: I started in '80.

Ferreira: In '80. So in '81 you actually...

Watson: So we, we did that in '81 and then we started construction on the new bridge in '82.

Ferreira: O.K. So that was the first big project you guys laid into on the trail...

Watson: Yeah, that, the first, see the first year my crew was, when I came here my crew was myself, a guy named Mike, and two women...

Ferreira: OK.

Watson: ...none of 'em who had any trail experience.

Ferreira: Do you remember the names of the women?

Watson: Yeah, one was [uh] Polly, I can't remember her last name...

Ferreira: O.K.

Watson: ...The other one was Sheryl Steed, and I don't remember his name...

Ferreira: O.K.

Watson: ...but we can get 'em out of Frank's...

Ferreira: Right.

Watson: ...actually he doesn't even have 'em. He does an aesthetic part of this history, he does, he does... Sheryl Steed... what's Polly's last name? [uh]...

Ferreira: I think I might [unintelligible]...

Watson: ...but [uh], yeah so that was my crew. No experience. None. So the first year that we were, we... we're kinda all over the place here, we should probably go through the rest of the bridges, let's go back and finish the bridges...

Ferreira: Well, I think we're O.K. for now let's just...

Watson: So, O.K., my crew was...

Ferreira: We didn't need to do the bridges one by one...

Watson: Right.

Ferreira: ...necessarily, I mean I think it's 'cause a lot of them pretty much are the same style [um] unless there's something...

Watson: Well none of them are the same style

Ferreira: Well you know what I mean, they're all pretty poorly built, with...

Watson: Right.

Ferreira: With a few exceptions...

Watson: Well except for the 11mile bridge which was quite an exception...quite a thing to see.

Ferreira: O.K.

Watson: ...is because the 11, the 11 mile bridge was a series of failed bridges...

Ferreira: O.K. (laughs)

Watson: ...that they had strung,.. it was, Sam it was one of the funniest things we had ever seen. When I first see 'em I said 'man I am in hell now'...

Ferreira: (laughs)

Watson: ...because...

Ferreira: So this is where the second suspension bridge is

Watson: Right. [unintelligible, sounds like "mount creek?"]

Ferreira: So that's Pleasant Camp. Gotcha. O.K.

Watson: But, the trail then didn't go up the hill, there, it just went straight...

Ferreira: Straight across...

Watson: ...straight across. So the [uh] bridge was just a series of these old dilapidated bridges that had failed and been pushed down stream...

Ferreira: (laughs)

Watson: ...sort of tied together with like, yellow old rope and near, and the bridge would go, would go to the west and then it would cut back to the east, then would come back to the west, then it would go back to the.. and it was just like this whole series, and would hit like high ground and then they'd put another section in here. And I mean you know that, you know what kind of water pushes through there...

Ferreira: Oh yeah, it's heavy.

Watson: ...I mean it, it as soon as it rained, forget it. You weren't getting across.

Ferreira: Yeah. (laughs)

Watson: We just had to close the trail. 'Cause I mean it was, I just looked at it and I went this has gotta, this is, this is outta here.

Ferreira: Uh huh.

Watson: So that was one of our main design challenges. That was probably the biggest design challenge.

Ferreira: To build another one? That, that didn't happen that, that year though...

Watson: Right. No, no we didn't complete that 'till '83.

Ferreira: O.K. Then you did a little further up stream?

Watson: The which?

Ferreira: The, the new, the new bridge for, for 11 mile.

Watson: Right well we went to the East and up on high ground. This was like right on the river bank.

Ferreira: O.K. did you build another log bridge there before you did the suspension bridge?

Watson: No, no.

Ferreira: O.K. so you went right to the suspension bridge.

Watson: We went right to the suspension bridge. We had a temporary bridge that we put in...

Ferreira: Right, while you were building it.

Watson: ...yeah while we were building so they could get across, we left that in the same location...

Ferreira: Yep.

Watson: ...but we improved it quite a bit.

Ferreira: Uh huh. Were there any other exceptional, exceptional bridges up there?

Watson: Exceptionally bad?

Ferreira: Well. (laughs) Yeah.

Watson: There were, there were only, there were... the only cool bridge on the trail when I got there...

Ferreira: Yeah?

Watson: ...was the bridge at the bottom of [uh] 5 mile, 5 and ½ mile hill.

Ferreira: Is that the one with the log rounds?

Watson: Yeah, the one that had the logs [unintelligible] yeah. That was a cool bridge, that had been built in the '60s.

Ferreira: K.

Watson: ...and that was a cool, it was, you know there's, at one time the river had flown through there...

Ferreira: Um hm.

Watson: ...but [uh], it flowed through there...

Ferreira: But it's since changed course.

Watson: ...but it's since changed course, so there was, you know, it just like, just over a little a little seep. But it was a very cool bridge, it was all mossed in, so it was, it was [unintelligible, sounds like "cool"]. Stairway to Heaven was just two old logs strung together, I mean that's [unintelligible] [uh] bridge of Dankness..

Ferreira: Right.

Watson: ...and, and everybody fell on that bridge...

Ferreira: (laughs)

Watson: ...Everybody fell, I mean it was like walking on slop, it was awful.

Ferreira: Right.

Watson: And that was, that was one of the things the main things about these bridges is that they were all slick.
Ferreira: Right.

Watson: You know, every one of them, they had made no effort to try to make them so that there was, so they were passable.

Ferreira: The treacherous Chilkoot Trail...

Watson: So my first crew, those four people, was probably the worst crew that I have ever had...

Ferreira: (laughs)

Watson: ...I only had one person who was, who would help me at all, Polly. The guy was useless. Sheryl [uh,uh] was just not strong enough to do the work, none of 'em were, except for Polly and Roy would help me if I... we built, the only, that first year I, I rebuilt that log ramp bridge...

Ferreira: O.K.

Watson: ...put a new bridge in there, and, and we built a new bridge up on the top, that is still in place today, part of it.

Ferreira: The new... what are, what are we talking about?

Watson: As you, as you go up the [unintelligible, sounds like "long way"] you go up that hill...

Ferreira: Uh huh.

Watson: ...and then there's, Scotty put in a bridge last year.

Ferreira: Right.

Watson: ...that bridge lasted for twenty years.

Ferreira: Right, right, right. Ah, gotcha.

Watson: So I, [uh] we put that bridge in, and the biggest thing I, that we did that year was, was to establish the base camp...

Ferreira: Ah, the trail crew camp.

Watson: ...right that was, what I did on that...

Ferreira: Hold on a second.

Watson: ...well the, the first year, what I saw as my main goal [um] goal that year was just to examine...

Ferreira: To scout.

Watson: ...'cause I read through Edwards' stuff, and as I, as we talked about the other day, he wanted to blast everything, and I, I came here with a blasting license from, from Glacier.

Ferreira: O.K.

Watson: But...it wasn't our style there...

Ferreira: Sure.

Watson: ...we only, we, we used it just blasting snow... snowfields.

Ferreira: Right.

Watson: So, and this thing was like you were blasting every fifty yards, blast this and blast that, so...

Ferreira: Hm.

Watson: ...I knew I really needed to go out and look at the whole thing...
Ferreira: so you were scouting it out...

Watson: So I hiked the trail, I took, I took four days and hiked the trail by myself.

Ferreira: Yeah.

Watson: Walked out there and, and, the, the most glaring thing was of course the bridge construction, was inferior quality, design, [uh] no drainage, there were no, there were very few water-bars or [uh], or any sort of drainage [uh] features on the trail...

Ferreira: O.K.

Watson: ...most of the [uh], trail had been occluded by brush, or was way too wide where the trucks had, where trucks were still driving up the road, [uh], to Finnegan's Point, [uh] they would go up and cut..essentially go up and cut trees.

Ferreira: Firewood.

Watson: ...they'd cut firewood...and [um]

Ferreira: And your crew was green.

Watson: Huh?

Ferreira: Your crew was green.

Watson: And my crew was beyond green.

Ferreira: Beyond green (laughs)

Watson: My crew was, my crew didn't work out so well that year...

Ferreira: O.K. (laughs)

Watson: ...well Roy helped me a great deal...

Ferreira: Sure. So you decided that you needed to establish a base camp and...

Watson: So that was my, that was my first function was to go in, and what they had said is, you know, "just go", and I said "where, where do you want it, where do you want to do it," so, what I wanted to do was put it half way between the trail head, and the Summit...

Ferreira: O.K.

Watson: ...so we could work that whole section...

Ferreira: O.K.

Watson: ...and that, the logical place was of course Canyon City.

Ferreira: Right.

Watson: Now their suggestion was to put it on the plain down below, but I figure they work in the forest all day long...

Ferreira: Kinda wanna...

Watson: ...they need to get out of that, that environment and get out and be, be refreshed, plus I was looking for some really good vistas here...

Ferreira: Yeah. Alright, well, let's, let's change the tape here... and continue the [uh] saga of siting the trail crew camp.

[End of Tape 1]

[Begin Tape #2]

Ferreira: Alright, we're gonna do the [uh], this is interview with Watson, July 15th...

Watson: Round two.

Ferreira: Round two, [uh], we're talking about the trail crew camp and how it was sited and, go for it, Watson.

Watson: So, the, when I was, let's see, when I hiked up to the first... I stopped at Canyon City the first night, I, I, I, looked, I looked around 6.5 mile bridge...

Ferreira: Um hm.

Watson: ...you know, as you cross 6.5 mile, and then you come to the Rock Garden...

Ferreira: Um hm.

Watson: ...if you go out to the West, as you just come up into the Rock Garden you walk out to the West, towards the river, towards the [uh], Taiya, almost where the Taiya and the "Norse"converge, the confluence of the two. It's a nice plain, I walked out on there, nice plain out there, really nice... you know, really level area, it would have been real easy to build a little camp in there, but there was a lot of, it was really great bear habitat...

Ferreira: Sure.

Watson: ...and I figured that I didn't want to infringe upon that...

Ferreira: Good.

Watson: ...because all through there, you know, the bears are always [unintelligible, sounds like "sitting there?"] and there are always lots of rocks turned around, so I said "naw, I don't think this is gonna be...I don't wanna do this"...

Ferreira: Rock Garden's out.

Watson: Rock Garden's out, man, it had everything you needed...

Ferreira: Sure.

Watson: ...it had water, it had [uh], level ground... but as I said, I was looking for something a little higher and out of the plain, get off the trail so people didn't know...

Ferreira: Right.

Watson: ...where the camp was at, 'cause you have a lot of camp equipment and you don't want people messing with your stuff...

Ferreira: Sure.

Watson: ...so I went to Canyon City, stayed there that first night and then just started walking around...

Ferreira: Yeah.

Watson: ...and walked through the trees and I just wanted, walked up those steps, there were only three steps at that time...

Ferreira: O.K... going up... the staircase?

Watson: ...right. And there were no bridges, there's one, there's one rudimentary bridge where that...

Ferreira: Frenchie's is at?

Watson: ...yeah where Frenchie's is at, same kinda, same construction.

Ferreira: K.

Watson: So I walked up to the bench and I'm just looking out, and I'm just going, "wow this is a pretty nice place here", so then I started going up further and then I was just like "geez this is a goat path"...

Ferreira: (laughs)

Watson: ...and then I just kept going up and up and up and then I got to the first rise and put my tent up...

Ferreira: Um hm.

Watson: ...and, I said "this is the place" so then I went up to the next rise where the helicopter pad is, of course there was no pad then..

Ferreira: There was just a knoll.

Watson: ...just a knoll then, and I looked out and just said, this is perfect, got a knoll there, have one to the west, have the one above, had two below, four tent sites, you know, in my mind..

Ferreira: Right, right.

Watson: ...and [um] but there were a couple of trees, there's four spruce trees that [um] that I decided had to go...

Ferreira: O.K.

Watson: ...so I tried to, so that, so what I did is I flagged the trees that I wanted to bring down, and I chose that as the site for our camp.

Ferreira: Good, good choice.

Watson: Yeah, so that's, that was the [uh], the genesis of that, of that [uh]...site.

Ferreira: Did you figure out how... how'd you figure out how to get the water to it? Just scout around for a stream or...

Watson: Yeah I, well you can hear the, you can hear the stream...

Ferreira: You can hear the stream, yeah.

Watson: ...but the stream was, you know, it originally, you know, it was a kind of a, it was, it was [uh] it wasn't easy to get water to the, where the camp is at...

Ferreira: Sure, sure.

Watson: ...because what we used to do is just bring.. is just, you know, we'd have like five or six, five gallon containers of water, and we would go to the creek and bring water back.

Ferreira: O.K. So give me a rough, quick evolution of the trail crew camp. First it was just...

Watson: Well the first, the first year that we came in [uh], as I said, we got all our gear ready to go in town, so we, we bought a lot of these big... I ... bought these big metal boxes for food...

Ferreira: O.K.

Watson: ...and had some, had Roy build me some wood boxes as well for food, with latches on them...

Ferreira: Um hm.

Watson: ...and [um], and so that, that first year we had a helicopter service out of Juneau, and we had the 'copter come up for an hour, he had a real short line on it, main line, he only had like a 50ft. of line...

Ferreira: Wow.

Watson: ...so I go up, I walk in by myself first, and [um, uh] I bring in the crew with me, and then, [um] he brings, starts bringing stuff down on slinglines (?)...

Ferreira: Um hm.

Watson: ...well he gets up there, and I cut down three or four trees already, so just enough to get 'em in that first knoll...

Ferreira: Right.

Watson: ...and he came in there and he looked at it and he goes "I can't get in there"...

Ferreira: (laughs)

Watson: ...and I go "man, you gotta get in here." So it took him like three or four times just to get it in, what he did is he finally put it up on the, just on the knoll, he dropped it, punched off the, punched off the line and half the sh*# started to roll down the hill, but we were, I was able to catch the load...

Ferreira: Yeah

Watson: ...grab it, stick it on a tree, and [uh]stop, and save it...so then he [uh], I cut off a couple more trees for him, but he had too short of a line, and...

Ferreira: Right.

Watson: ...I told him not to bring it in. He said "well I didn't bring an extra [unintelligible, sounds like "piece of"(?)]"... so it was rather arduous, I mean it was, to get all the stuff up there, we had to, we ended up having to carry a lot of the stuff up there...

Ferreira: He just wouldn't...

Watson: ...for the first site, no, he didn't... the other guys, no one else after him had a problem with it, I think...

Ferreira: He had a problem (laughs)

Watson: ...he was, a rather timid flyer, and I mean I know...

Ferreira: Sure.

Watson: ...a lot of... I've flown helicopters in the military and [uh], and, I've spent a lot of time in helicopters and this guy was just too timid for the site.

Ferreira: O.K. (laughs)

Watson: So we, we flew all the gear in, and what we had, what, what was there, where the cabin is now, is, we had a couple of green [uh] water-proof tarps, strung those up, had one flap, high flap, and a flap in the, in the back and that was it.

Ferreira: K.

Watson: That was the cabin.

Ferreira: That was the cabin.

Watson: And we had four food boxes, and I had another box that you could put a.., like a stove on, and that's where we cooked.

Ferreira: (laughs)

Watson: And that's where we got soaked, because it rained every damn night.

Ferreira: (laughs)

Watson: And, you know, I, I, as I told you earlier today is that, I didn't want to cut down live trees, we took the trees that, that I had to cut for the site and we stacked them because they were alive and green...

Ferreira: Um hm.

Watson: ...but then we were able to bring some in, and then, we, so we had there's a... you know a, just below, where the helicopter pad is now of course there was no pad there, the pad's only been in there like six, six, seven years...

Ferreira: So they'd just drop loads, they wouldn't land?

Watson: No, they landed on that rock.

Ferreira: They would land on the rock?

Watson: Yeah, oh yeah.

Ferreira: O.K.

Watson: Yeah, later pilots, but this guy never would.

Ferreira: Right, right, right.

Watson: But yeah, they would land on that rock...

Ferreira: Right.

Watson: ...it was, yeah there's some, I can tell you some stories about that...

Ferreira: (laughs) Alright, let's, let's get to the other question here, what happened...

Watson: Well, well I'm evoluting, brother.

Ferreira: Alright, alright

Watson: I'm evolving here, give me a break.

Ferreira: Oh man.

Watson: [Um], so we go, we went, and we used to have a fire pit, right next to where the pad is now, just a little one, almost like a little cauldron in there...

Ferreira: Yeah.

Watson: It was, yeah, yeah a little dip in the rocks. So that was where we burned all our trash and... had a fire pit, and then we had tents [uh], dome tents on [uh], we had four dome tents on the other knolls around that, so that's how we'd lay it out...

Ferreira: Are the sites where the tents are now pretty much where you...

Watson: Yep.

Ferreira: ...had them arranged?

Watson: Those were the way, those were the way they were originally laid out.

Ferreira: And, and the, even the one around the canyon, out on the... lookout out there?

Watson: Yeah we built that whole thing...

Ferreira: Yeah the rock wall there.

Watson: ...that came later, but...

Ferreira: Sure.

Watson: Yeah that was all, that's all constructed.

Ferreira: Well I mean, was it all conceived originally though, or that, just kind of...

Watson: No it was all, it was all conceived originally as a site...

Ferreira: O.K.

Watson: ...but it just got better as the years went on.

Ferreira: Sure, sure. Yeah 'cause that, that one, that site that looks down the valley, man...

Watson: Oh yeah.

Ferreira: The views from that one..., you know, looks right down the valley.

Watson: A guy named, uh, ah what's his name? Art, Art, [uh] I can't remember his last name, but we can get it... Art was the one who built that...

Ferreira: That little rock wall there?

Watson: That rock wall there. Art was a character.

Ferreira: He liked that spot...

Watson: For government publication we won't talk too much about him...

Ferreira: (laughs)

Watson: (laughs) Let's turn off the tape before we talk about Art too much.

Ferreira: Yeah. Um, so did you have the view in mind when you, when you decided on those...

Watson: Absolutely.

Ferreira: Yeah. They all have spectacular views.

Watson: Yeah, and then, that was part of the whole thing, I wanted everybody to have their individual space...

Ferreira: Sure.

Watson: ...put up a tent... I wanted to have a viewshed, because every place has a view, it, second site up from where mine is, that, I, I always think that that was the first site I...

Ferreira: You were at the first one down there?

Watson: That's the one I took from the very beginning. I stayed there for twenty years...

Ferreira: (laughs)

Watson: ...Roy's was the next one...

Ferreira: K.

Watson: ...he wanted a view of the glacier...

Ferreira: Well he got it.

Watson: So he did, I wanted to look down the canal...

Ferreira: O.K.

Watson: ...the one on the other side we wanted to look down the canal...

Ferreira: Down the canal.

Watson: The one up above, was to look at the glacier and then there was another one, just to the [uh] West of the cabin, which is since not, I don't think it's used much [unintelligible]...

Ferreira: Oh where the, where the, there's a...over by the outhouse.

Watson: It's near by the outhouse.

Ferreira: Yeah.

Watson: That used to be Andy Robertson's...

Ferreira: There's a picnic table there now.

Watson: That used to be Andy Robertson's place...

Ferreira: Got it.

Watson: ...tent, tent site. So.

Ferreira: So when was the cabin built?

Watson: [uh] the cabin was built second, was, was

started in 1981.

Ferreira: O.K.

Watson: And how we got that cabin together is we never really got official...O.K. to build the cabin.

Ferreira: (laughs)

Watson: We just pretty much got together all the scrap we could find and flew it in and put it together, the first year, we built the [um] put the piers in...

Ferreira: Um hm.

Watson: ...and put the floor on, and that was it, that's all we had.

Ferreira: a platform...

Watson: We had a platform, got us out of the mud...

Ferreira: Sure.

Watson: ...'cause that first year I was soaked every night. I mean, that was when we were on ten-fours too...

Ferreira: Man.

Watson: So it was 10 days on, 4 days off, and it rained, that first year there, it rained, it was flooding all year, that's when we lost a bridge...

Ferreira: Right.

Watson: ...at mile and a half.

Ferreira: Yeah.

Watson: But it flooded, it, it was flooding almost the whole year. So the, [uh, uh], so we put the piers in, put the flooring in,... it took us six years to build the cabin. [unintelligible]...

Ferreira: Right.

Watson: ...and it was seven years, the seventh year we put in a water system. And we added something to it every year, then we put windows in...

Ferreira: Um hm.

Watson: ...but [uh], so the, the second year we had the floor, and we just had to stay on old tarps and stuff. So it was still pretty miserable when it rained...

Ferreira: Sure.

Watson: ...but at least we were out of the mud.

Ferreira: Out of the mud, yeah. Nice.

Watson: So then, the next year we put the walls up, and then we put, just [um], we put the walls up the walls were about eight feet [uh], eight feet high, and then we put 2x4s across the top, and then strung a tarp over the top. And that was the way it was for a number of years, until we could get enough money to [uh]...

Ferreira: Put a roof on it.

Watson: ...put a roof on it, put, [uh], you know, shake it, put a shake roof on... put the water system in, bring up a, a, bring up a propane stove, refrigerator...

Ferreira: Mm hm. Did you put the [uh]...

Watson: ...a sink...and [uh]...

Ferreira: ...Paloma?

Watson: Huh?

Ferreira: Did you put the "paloma" in there too...or was that?

Watson: Yeah we put the "paloma" in there...everything, everything in there we put in.

Ferreira: Good.

Watson: [uh] Roy Nelson and I and [uh], and [uh], John Ward (sp?) and Andy Robertson, you know that's, that's what we worked on that, we, we worked on, we usually spent a day working on the cabin...

Ferreira: The cabin.

Watson: Until it was completed.

Ferreira: Each shift... yeah.

Watson: But, you know, one of the, the first years, you

know, perhaps 1985 I think, is when the bears hit us.

Ferreira: (laughs)

Watson: So we had, we had [uh], we had a wooden door, we had the tarp, you know, we didn't have [uh], we didn't have any windows... we had win, we had windows but no glass, one side we had some with plywood, we didn't have a roof, and some of the front windows were open...

Ferreira: Um hm.

Watson: ...because there were, there were no, the wood is just framed in...

Ferreira: Um hm.

Watson: ...so then the bears hit us, and we got all these wooden boxes, everybody had their own box they kept their food in it, well the bear, and then we had a ¾ inch plywood door, bears came and ripped the door off, had a lock on it, they ripped the door off...

Ferreira: And this happened while you guys were out working, or...?

Watson: No, this happened while we were in town.

Ferreira: Oh, right.

Watson: ...so they ripped the door off, came in, ripped the tops off of all the food boxes that were locked...

Ferreira: (laughs)

Watson: ...and I mean I have never in my entire life seen a bigger mess, and we opened that, when we walked up there, and there it was, and it was, they had smeared sh*# everywhere...

Ferreira: (laughs)

Watson: ...they had chewed into every can, they had the whole floor looked like it was just swimming in sh*#...

Ferreira: (laughs)

Watson: ...you know, and they, they had ripped, ripped everything to, to, hell, they had torn down most of our tents, p-pulled the sleeping bags out, I mean this isn't because we had left any food out, they just wanted to see what was going on...

Ferreira: They came in and...

Watson: ...so it was the night of the, the living dead man, 'cause they, they hit us hard.

Ferreira: (laughs)

Watson: I mean every tent was shredded...

Ferreira: Really.

Watson: ...yeah, they, they, they took their, well they got up on their, you know, claws, and they just, nylon tents are history.

Ferreira: Yeah.

Watson: We had to go find our sleeping bags, most of them were down in the gully below us...

Ferreira: (laughs)

Watson: ...and the pads...and we walked in there and it was like "oh my God." So we're sitting in there and there's a shovel in the door, so Roy and I are just looking at this and going "holy sh*#" and one of the most ironic parts of it was that, so I'm looking at all my food, thousands of dollars of food gone, and I'm looking at it and I had a bottle, a big bottle of pure maple syrup, and it looked like they'd taken their paw and did, un-did, unscrewed the cap, which is actually what they did, chewed it off, or whatever, and drank all of that. And there's Roy's big bottle of Aunt Jemima, phony-ass..

Ferreira: (laughs)

Watson: ...m- maple syrup in a plastic container untouched (laughs)

Ferreira: (laughs) Nice.

Watson: It was classic. So I'm sitting there, and Roy and I are sitting there, and so Roy's on the other side, I'm right by the door and he, and Roy says, "Watson!" and here comes this big black bear walking in right behind us, so I have the shovel and just took the shovel and I just went like this, and I whacked him right in the snout...

Ferreira: No.

Watson: ...and he took off...

Ferreira: (laughs)

Watson: ...he took off like a, and so he takes off and then, then coming down from the hill, here comes this big golden black bear, one of the most beautiful bears I've ever seen. And he's, she's coming back in as well...

Ferreira: Hm.

Watson: ...so there are like four bears who had been feeding in this place...

Ferreira: Right.

Watson: ...so I got the shotgun, and, and one of them would come, was coming up over the, right over the top of the hill, and I firecrackered him twice.

Ferreira: What'd he do?

Watson: Just stood there and looked at me, and then finally I hit him again and he was gone.

Ferreira: Huh.

Watson: And they took off. And so I call into town to tell them what happened, so, we clean all the sh*# up, and they say "destroy the bears" if they come back. And I'm going, "no, I don't want to do this, I don't want to destroy these bears." So, we clean it all up and so then the great white hunters come...

Ferreira: (laughs)

Watson: ...Jay Cable (sp?), John Warder, and they decide that they are gonna trap the bears. So we, we had fixed all the stuff, you know, got it cleaned up, all the mess, it took us two days to clean this sh*# up, we were able to, we were able to salvage some of our food, whatever we brought up, and some of my clothes, you know a lot of my clothes were ripped up, tents, we had to buy new tents, we had to get new tents. But [uh], so they come up, they're gonna trap the bears, so they set up these traps. And so we're going up, u-and imagine that you're walking up the hill all of us, and here's Jay Cable, you don't know him, he used to be chief. He's got his earmuffs on...

Ferreira: (laughs)

Watson: ...so does John, and they're going "I'll take the East, you take the West side"...

Ferreira: (laughs)

Watson: ...and Roy and I are down there just laughing our ass off going, OK, these two are guys go up to the top, they both got their earmuffs on, they can't hear each other, they're gonna kill each other!...

Ferreira: (laughs)

Watson: ...so we go up there, so we go out to work every day...

Ferreira: Right.

Watson: ...and they're waiting for the bears. Well they sit there every day they put, they put all kinds of sh*# and food, bring the bears in. Bears never come in. They were there for like four days. Finally they go "ah man, they're not coming back, we're out of here." They left, I don't know, two, two or three probably in the afternoon. We went to work the rest of the day, we came home like five or six. The bears had hit again as soon as they left!...

Ferreira: Yeah. (laughs)

Watson: ...and come back in...yeah, [ah] well I don't know if they were watching us, just so ironic they just came in, blasted through again, they didn't, but this time they'd crawl up those trees in the front...

Ferreira: Um hm.

Watson: ...and...

Ferreira: Got in through the windows.

Watson: ...they, went in through the windows.

Ferreira: Got it.

Watson: So then we, we [unintelligible, sounds like "set them up"] so then I took a bunch of the old cross cut saws and put them across the front windows so they couldn't get in there...

Ferreira: (laughs)

Watson: ...you know, so there, there was that sharp edge

on it?...

Ferreira: Yeah.

Watson: ...and they couldn't get a- they could... they crawled through the top too...

Ferreira: Hm.

Watson: ...they had little cubs that could crawl through the top...

Ferreira: Yeah.

Watson: ...so I put those cross cuts across the top of that. But that's when we decided we needed all new, we got all new, bought all new metal boxes for food, and...

Ferreira: Yeah.

Watson: ...so they couldn't get into food.

Ferreira: Yeah.

Watson: Because it wasn't their fault I mean they got in, they tore the place up, it wasn't like there was food out 'cause there wasn't...

Ferreira: Naw, but they got in a ripped the tops off the boxes and...

Watson: Yeah, so that's when we really started to... we put windows in...

Ferreira: Um hm.

Watson: ...and [uh], we put a roof on it, and we really started to... we put a drainage system down, so you can drain the...

Ferreira: Sure.

Watson: ...gray water down... to a 55 gallon drum which is buried down below...

Ferreira: Um hm. That gully there.

Watson: Right.

Ferreira: What happens to that? Does that just eventually drain into the soil or...

Watson: Yeah it's, it's never been changed...

Ferreira: (laughs)

Watson: ...God knows what's happening to it...

Ferreira: What, what's to stop the bears from coming back and hitting the cabin again?

Watson: The, you know, what is, is after that one, after that time, we made sure that the, there's, they couldn't get in... number one they couldn't get in the cabin.

Ferreira: Not, not as easily, yeah.

Watson: Right. And the other thing that I did is [uh], is they're just by nature inquisitive...

Ferreira: Sure.

Watson: ...so I just told the guys when you leave, for, for [uh] work every day, unzip your tents, we'll let 'em go in, drag it out if they need to, then they don't destroy the tents...

Ferreira: Sure.

Watson: ...and, it was like, we became their friends, and the fact that I never went out and killed all the bears, and this might sound crazy but, [uh] we just, you know, they didn't bug us anymore, we didn't bug them. They still come through there all the time...

Ferreira: Sure.

Watson: ...but we never, we never had another problem like that. Once in a while they, they scrape around down where the gray water pit is at, but they rarely...

Ferreira: Dig it out.

Watson: ...yeah they never dig it out.

Ferreira: Hm.

Watson: Because we burn almost everything...

Ferreira: Right.

Watson: ...and so there wasn't...

Ferreira: Well that's what you gotta do.

Watson: ...there wasn't a problem after that.

Ferreira: Interesting.

Watson: But then we put the water line in. And we ran the water lines 1000 ft. PVC pipe that goes from the creek to the spring box...

Ferreira: Do you know where that, that, that spring, that creek comes from glacier water or...

Watson: Yeah, it comes from the mountains...it's, it's good w – it's good water. The only thing is that, in the, in the late summer, it gets drained, it's, it runs pretty low...

Ferreira: Yeah.

Watson: So you, y – it's, and now it's all filtered of course.

Ferreira: Sure.

Watson: But we ran that, that end first couple of years we ran that, that spring box, which makes it... you know the guys now they got it lucky, they, they just walk in they got water they got everything, but there was a lot of work involved in that whole process...

Ferreira: Sure.

Watson: ...building all that stuff, and putting it in, just the infrastructure alone there was, was, was enormous, you know, it's a lot of work. And I mean just a lot of, [um], 'cause we had to carry that spring box up there and, and put that together put all that together, c – clean the stream out above...

Ferreira: Um hm.

Watson: ...get the debris out so that water would flow.. [uh], clear. And then we put that in, ran it in, and then the bears started... they, they liked it, they liked that black pipe...

Ferreira: (laughs) liked that black pipe?

Watson: ...so then they started chewing it...

Ferreira: Oh...

Watson: So every time we come back, so all those, those rubber patches around there 'cause every time we come back there' d be stuff like springing all over the hills...

Ferreira: Oh, I think they've got problems with that now actually. I had to go up and clear the filter...

Watson: Yeah the intake it's...

Ferreira: ...the, the intake gets clogged, but once I did that, as I was walking down the line...

Watson: ...you can see where the line leaks... yeah.

Ferreira: Several places, so I don't know...

Watson: ...and you can see like these green flushes, you know...

Ferreira: Uh huh.

Watson: ...it's like almost like a, [uh],[uh], like a plume, you know?

Ferreira: (laughs)

Watson: An algae bloom...

Ferreira: They chew on it, huh? I didn't realize it was bears...

Watson: Oh yeah they chew right through it, it's all bears.

Ferreira: Interesting. So it's just a water source for them?

Watson: Well it's that and they like to chew and, it's just like they love to chew, they love to...

Ferreira: A chew toy.

Watson: Yeah. And they love to eat "bar oil" (?)...

Ferreira: O.K. Interesting.

Watson: I mean they've chewed on our chain saws, they eat "bar oil," they've eaten probably 30 gallons of "bar oil"...

Ferreira: (laughs)

Watson: I mean we'll hang it in the tree and they'll climb up the tree to get the "bar oil" it's just that viscous

texture...

Ferreira: Um hm. Interesting.

Watson: I, I don't know, and they're probably dead thereafter but...

Ferreira: Sure.

Watson: ...but they've, I mean I caught one with his snout in "bar oil"...

Ferreira: (laughs)

Watson: ...we've got some good, there's some great bear stories.

Ferreira: Alright. That's a good one. Anything else about the trail crew camp you want to add?

Watson: Well I mean the [uh], the, the initial year is, like I was telling you earlier, the, the important thing on that, the, the camp is that, you have to have a sense of the, of the [uh] ecosystem. You have to, you have to be careful about, you know you don't want to cut all the green trees down for firewood, you know eventually what they should go to is like propane or something stove for that place, 'cause...

Ferreira: Yeah. What are they going to do with their garbage then?

Watson: They're gonna, they can get a, they can g- you, you can get a burner... that burns, that burns propane... you need to go to some other source of e- of energy because, you know, unless you wanna go way back up, they're not gonna do it, I know they're not gonna do it.

Ferreira: Um hm

Watson: I mean we have, we've, we would have like every spring we'd go up and I'd send the guys out, that would be like the first three or four days and we'd just clean the camp up, get everything together, and go collect firewood and bring it in. And that's why it's so important that you don't have a lot of people staying there...

Ferreira: Sure.

Watson: ...because the more people that stay there the more resources you use. So, they have to go to something different than what they have, 'cause, you know, I was really particular about, when we laid it out, there was one trail, and I insisted that the crew only use that one trail, don't cut across it, and I would, I mean, people do that I would get pissed off and say "no, you stay on that one trail that's the trail we have, that's what you use all the time. Don't use any other trails." And it, it stayed in good condition for a while, I mean it's, that trial camp's been there 23 years...

Ferreira: Um hm.

Watson: ...in fact this is its 24th year up there.

Ferreira: It's kinda, vegetation's changed. They've cut a lot of trees down.

Watson: Well that was a mistake.

Ferreira: Well and a lot of 'em were for the helicopter.

Watson: Right but you get, you know the helicopter's got 150ft. line, you gotta, you gotta helicopter pad there... once you cut those trees, soil erosion goes.

Ferreira: The moss dies.

Watson: The moss dies and the, the rains will come carry it all away and it's gonna be a barren rock.

Ferreira: Yep.

Watson: And that's not the way it should be.

Ferreira: It's too bad.

Watson: I mean, so there should be guidelines for that. I mean, I always had guidelines. I would, I would never let em cut all those trees down, you know, if we had to, if we had to, to trim some of them we'd do it.

Ferreira: Um hm.

Watson: But you know you can't just destroy the whole place. Because it's habitat up there, there's lots of bears up there.

Ferreira: Sure.

Watson: I mean all through that area.

Ferreira: It's perfect bear habitat.

Watson: And there's no, there's no reason to do that, you know, I mean we, we use that one outhouse, we used that same outhouse hole, sh*#, ten years? And if they, you know, if you increase people going up there, you just have to, they have, you know, they have, they, they're gonna have to come up with something else.

Ferreira: Yeah, they need a new plan if they want everyone to use the camp.

Watson: Yeah they absolutely do and they, and it, and it needs to be implemented. Because that's why I had really stringent rules about who could stay there then, because the trail crew's there, that's their house, that's where they live, that's where they work. That's where you come home, your working all day, you don't really want to see a whole lot of people.

Ferreira: Yeah.

Watson: Because it's really, it's hard work.

Ferreira: It is. Very.

Watson: I mean you're exhausted, you want to eat, clean up your stuff...

Ferreira: And go to sleep.

Watson: ...go to sleep. And get up early in the morning and go at it again.

Ferreira: Yeah.

Watson: And if you gotta move around people sleeping in a cabin then it's not good.

Ferreira: It's no good, yeah.

Watson: So, so the, the first, the other problem was, is that on that rocky knoll, well I tried to talk John into years of, like 1987 I wanted to build a pad there. So we came here in 1988 and [uh] we had an "A-star"(?) which is what they've got out here now. Really good pilot, [uh] good guy, ERA, still using ERA?

Ferreira: Yeah.

Watson: So he lands, puts the skid on the front of it, we're just about to get out and the skid breaks...

Ferreira: (laughs)

Watson: ...the tail goes down like this, and I thought we were all going down the hillside, and he was able, he was able to keep it. After that I said "Uh, man, this is ridiculous, we gotta get a pad put in there." So his idea was to just take logs, lay em out...

Ferreira: (laughs). This is Warder's idea?

Watson: Yeah, take two, take four logs, just, you know, whatever you can find, spike 'em together and you can land on top of 'em.

Ferreira: (laughs)

Watson: And I was going "g- what the hell is that?" I mean we've got a, sh*# a, a helicopter weighs 25,000 pounds, or better, you know, we need a pad. So we finally convinced him to, so Roy Nelson and I and Mike Barley built that helicopter pad.

Ferreira: That's the same one that's been there...

Watson: Chiseled out of the rock with, with chisels.

Ferreira: (laughs)

Watson: 'Cause [uh], 'cause John wouldn't fly the [unintelligible, sounds like "rock over it"]

Ferreira: Aha.

Watson: And [uh], so we built the whole...

Ferreira: Still there, it's still sturdy.

Watson: ...oh yeah that thing's bomb proof.

Ferreira: (laughs)

Watson: Yeah but the first day, you know the first time he's coming in, you know we busted our ass in there, put, used really good materials, it's very, really well supported, structurally sound, but you're going "f--k I built this thing"(laughs)

Ferreira: (laughs)

Watson: So the first time Dave, Dave [unintelligible, sounds like "Robuck"] was the first guy to land on it so we're up there going, "K... uh, let's just back up just a little bit here." So, so he landed, set down, I said, 'cause I was talking to him on the radio, I said "you know, bounce it a couple times to make sure that, you know, it's, it's..." and he got it and he goes, "this place, this thing's bomb proof, man, there is no problem here" so that's, that's it...

Ferreira: That's it.

Watson: That was it, that was, like the final thing, and of course we have the back trail that goes out...

Ferreira: Right.

Watson: Try to keep that so you can't see people... we don't want people coming up there for any reason, you don't want people coming up there and camping out, you know, hikers, you don't want [uh], th- there's a lot of equipment up there, a lot, there's lot of money sitting in that place...

Ferreira: Well, not only money but liability.

Watson: Yeah, liability and plus all, all the personal gear from the... because everybody has, I think it's really important that people do not sleep in the cabin...

Ferreira: Yeah.

Watson: ...that they sleep in tents if you're gonna stay there, don't sleep in the cabin...

Ferreira: Is that a safety issue or, or...why?

Watson: ...well it's, it's more of a, it's more of a personal issue that, that, you know, when you come, come in there in the morning you gotta, you gotta work around people it's a small cabin...

Ferreira: Sure.

Watson: ...so everybody should stay in their own tent, and if you have work that needs to be done below, then let people stay in Canyon City. There's a campground down there, there's an old campground where we built this bridge, we'll talk about the bridge another time.

Ferreira: Yeah, well that's good, and I think we're done for...

Watson: It's a special bridge.

Ferreira: ...for the evening.

Watson: Well that's, I mean that's [uh], pretty good.

Ferreira: Say everything you want to say about the trail crew camp?

Watson: Just that it's [uh], one of the finest places on earth.

Ferreira: Damn straight, brother.

Watson: Yeah that's, that was the hardest thing to... when I left the trail that was the hardest thing for me. That and there's a couple of old sacred spots that are very special, but the cabin, I mean living up on that knoll, man, was, the birds in the morning, you hear the river...it's...

Ferreira: The views, everything,...

Watson: It's [uh], it's [uh], it's a special place.

Ferreira: It is a special place.

Watson: So that's it for tonight, Sammy.

Ferreira: Alright, thanks Watson.

[End of Tape #2]

[Begin Tape #3]

Watson: Hey what's up little brother, how are you guys doing in the future? (laughs)

Ferreira: (laughs) Alright. Let's see I think we got tape now.

Watson: When Sam's ready to move on in his classic "Alright, shut up, let's go."

Ferreira: Shut up and move on. Alright this is session number three, July 16, 2003, Samson Ferreira and Jerry Watson. So. We're gonna talk about flood zones.

Watson: Flood zones.

Ferreira: You got it. Let's go ahead and start from the

beginning of the trail and [uh] what, where the problems seem to be...

Watson: [Um] the first, the, the bottom of the first hill...

Ferreira: Uh huh.

Watson: ...is a flood zone from there all the way [uh] to... literally all the way to the steel bridge. [Um] well actually, from there to the,..old boomerang bridge which is the second bridge in...

Ferreira: Right.

Watson: ...that has all been underwater many, many times before. [Um] when we first came in there we used to be flooded all the time we built some drains in there and then we, [uh] pick, well we ex- well we ex- the mineral soil that we excavated and rock we put up on the tread, so we built the tread up...

Ferreira: Raised the trail, yeah.

Watson: ...but any, that whole channel in there, there's a series of channels that come in through there off the Taiya, that are all, it's a overflow. Any time you got flood stage...

Ferreira: So it comes in from the North and flows down through...

Watson: ...it comes in, we know that, where the Taiya comes in a meets the West Creek...

Ferreira: Right.

Watson: ...well there's a spur off of that, a fork off the river that comes around, and that's a dry, dry fork in the river there...

Ferreira: O.K.

Watson: ...now in flood stage that'll,.. usually open up. And then that starts to flow through there and whenever it flows through there, then it's, then it starts to [uh], come in through those slews and floods the bottom zone there...

Ferreira: K.

Watson: ...and also the, the creek that comes down by mile and a half bridge, the steel bridge, that, that really floods...

Ferreira: K.

Watson: ...a lot too, and that, that flows right in front of that bridge...

Ferreira: Right.

Watson: ...so from that point so, so, let's say we're at point, point [uh], point 6 or naw, yeah point 5...

Ferreira: from the bottom of the steps is point 6.

Watson: Yeah the bottom of the steps all the way to the, to [um, uh] to the bend in the river there. To the second bridge, boo- [uh]...

Ferreira: K.

Watson: ...Boomerang.

Ferreira: Where the viewpoint is out over the...river

Watson: Right, that's all flood, that's all been under water many times.

Ferreira: K.

Watson: The next zone would be from, [um], you go beyond mile and a half bridge and then you come to the [uh], [um] where you cut off, where the, where the, where the [uh] there's a ravine or like that's in the trail, that actually used to be the trail...

Ferreira: Hm.

Watson: ...but it got washed out and John Warder didn't want to fill it in, I wanted to fill it in and, and continue to use that...

Ferreira: Hm.

Watson: ...but instead he just said "no, let them walk around it." So we put that...

Ferreira: So that's a re-route.

Watson: ...that's a flood, that's where the river fork comes in and hits the bank coming from the, the

Taiya...

Ferreira: Mm.

Watson: ...and that floods there, and that'll usually flood, that can, I've seen it flood down a trail, it doesn't happen very often.

Ferreira: K.

Watson: But it has, on occasion.

Ferreira: So what about like the Beaver Pond area?

Watson: The Beaver Pond area never used to be a flood zone.

Ferreira: So that's pretty recent?

Watson: Yeah, it, on occasion it would get some water there but not much. It didn't really start flooding out until [uh], the beaver moved in.

Ferreira: (laughs) Yeah, right.

Watson: Because that was, you know it was a low area, and there it's now all under water, the tr- trail's been moved.

Ferreira: Sure. The road used to go right through there.

Watson: Yeah.

Ferreira: Yeah. So...

Watson: Where the trail goes off to the right now, it used to go straight.

Ferreira: You think that beaver pond is somewhat of a natural flood control system now? Do you think that is beneficial?

Watson: No, no, I mean it's not, no, 'cause it floods the trail.

Ferreira: O.K.

Watson: It floods a great part of the trail.

Ferreira: Yeah.

Watson: It never used to be under water now it's... you know, it's provided habitat...

Ferreira: Sure.

Watson: ...of course, but it's also...

Ferreira: What about further down though, I mean maybe it, it holds a lot of water, even though it floods part of the trail, it could...

Watson: No, it never, it it's floods a great deal of the trail.

Ferreira: O.K.

Watson: But now before that, is the, where the dry f- what they call the dry fork bridge was [unintelligible]...

Ferreira: Well it's that ephemeral creek there that only fills up...

Watson: Yeah and that's, see, that's another over, that's an over that's another overflow channel. Whenever it's flood stage that's...

Ferreira: That's gone.

Watson: ...it's been over the top of that bridge many times.

Ferreira: A wooden, it's just a weird, it's a wood log bridge, right?

Watson: Yeah.

Ferreira: It's in between the two steel bridges?

Watson: Yeah, the water's been over the top of that.

Ferreira: Huh. Interesting.

Watson: In fact, the trail has been flooded from... above Canyon- above Sheep Camp- above [uh] s- log cabin, all the way down to the bottom of the first hill. Is there's one high spot there, as you come out of [uh], just as you come down the, t- the road, before you get to a s-[uh] a sawmill.

Ferreira: O.K.

Watson: But all the rest of it has been under water before. I've hiked through there with water up to my knees and my chest.

Ferreira: Geeze...all the way to the Canyon City...?

Watson: Roy... All of it's gone and under water, the whole plain is, has all been under water.

Ferreira: Sure. Now when you say log cabin do you mean...

Watson: I mean, not log cabin, I mean [uh] sawmill.

Ferreira: Sawmill, O.K. O.K. next...

Watson: So, so the next, the next flood zone would be... there's that one little section where you come off the trail... where you kinda meet, you're going down the trail, you're almost coming to the flat where the, where the air zone is at...

Ferreira: M hm.

Watson: ...the [uh], the [uh]...

Ferreira: Landing strip.

Watson: ...landing zone. There's, you take a little left, you take a left off the, off the road and come back, and that's flooded in there a couple of times, but usually that's high and dry. From that point, until you get to the top of the rise, just before you drop down into [unintelligible] along Finnegan, the line when you're walking along the river there.

Ferreira: Right.

Watson: That's all been under water, from that point, from Finnegan's at that point below the air strip, all the way North, to North of the [uh] of the camp ground...

Ferreira: Finnegan's.

Watson: ...yeah North of Finnegan's campground. Well...[unintelligible, talking over each other]

Ferreira: Yeah.

Watson: And it's been under water all that way, all the way through there.

Ferreira: What about Rock Garden? Does it ever...?

Watson: No.

Ferreira: Doesn't ever flood...K.

Watson: No, never, Rock Garden's been high... and then you've got a big flood plain that goes, when the, when the 6.5 mile bridge [uh] floods, it floods that whole lower plain that flooded all the way to the bottom, the, up that hill, you know the nice [uh, uh] hemlock forrest...

Ferreira: Um hm.

Watson: ...coming from the Bridge of Dankness all the way to the bottom...

Ferreira: Right.

Watson: ...that can be all under water in there as well.

Ferreira: Wow. O.K.

Watson: Whenever it, whenever the 6.5 mile bridge floods, it'll flood that whole plain there. It's done it many, many times.

Ferreira: And it'll do it again.

Watson: So you got that, that, that's another flood zone. And then at the bottom of the Bridge of Dankness till you cross the log round bridge, that's all been under water many, many times.

Ferreira: To the point [unintelligible], right?

Watson: Yeah. So you've got that point, and then you, at the bottom of the next hill, all the way to the 6.5 mile bridge, and then it- it's I've seen it, I've seen it flood, [um] all the way to the Rock Garden bridge.

Ferreira: O.K.

Watson: And then once you get to the Rock Garden you're fine. It's never, I, I've never seen it flood there.

Ferreira: It's too high, yeah.

Watson: It's too high, but then you drop down into Canyon City, Canyon City's been inundated many, many times.

Ferreira: By the Taiya or by the [uh]...stream?

Watson: Nah, by the stream coming down.

Ferreira: O.K. Yeah.

Watson: The Taiya has done it as well.

Ferreira: Right, well it's, it's in the flood plain, basically.

Watson: Right, but it's, see it's come down off that mountain…

Ferreira: Sure.

Watson: …see then, there used to, there, the ground plain there used to be about three feet lower than it is now…

Ferreira: Huh.

Watson: …it's filled in, completely, that stream used to be really cut deep…

Ferreira: Right.

Watson: …but we had a flood about 10 years ago, and it went right through the cabin, it [uh] destroyed a lot of the camp sites – it's in my report.

Ferreira: O.K.

Watson: So, you got that, that point, and then from there the next area that you have to worry about is at, is at Pleasant Camp which has been flooded, sh*#, 50 times.

Ferreira: 50 times.

Watson: The old Pleasant Camp I'm talking about.

Ferreira: Right, right, right.

Watson: The new Pleasant Camp is…never really been flooded…that I'm aware of.

Ferreira: Although, well the water does get pretty close.

Watson: It gets very close.

Ferreira: Yeah.

Watson: And 11 mile bridge has flooded all the way to… it's been under water all the way there to…you get to [uh], ju- just before it, it goes to about 11 ½ mile.

Ferreira: O.K.

Watson: But when it comes down off that 11 mile bridge, that, that cut through there, that's the most devastating and most dangerous course of river upstream and up the trail…

Ferreira: K.

Watson: …11 mile bridge, we built the bridges [unintelligible]… it flooded the whole thing, took out [um], all of our camp sites, took out all of our steel, carried a lot of our steel down the river, just tore the living sh*# out of everything… and then it runs, comes straight down and it hits that wall that sort of creates like a, a berm down there, and then it just goes off.

Ferreira: Hm.

Watson: See Pleasant Camp we, we put a, we, we had, we put an engineered log jam in there, the old Pleasant Camp, that worked fine for two years and then it came and…

Ferreira: Pushed it down.

Watson: …pushed it all out. Yeah…it was [um]…

Ferreira: Right.

Watson: …so from that, so then as you go beyond once you get to [uh]…

Ferreira: Zigzag?

Watson: Zigzag all the way to…

Ferreira: Almost to the cabin, huh?

Watson: No, beyond the cabin, it's flooded all around there…

Ferreira: Ah, that's true those streams coming down through there…

Watson: It's flooded everything in there.

Ferreira: Yeah.

Watson: All the way till you get to where that last br- the last bridge...

Ferreira: Uh huh.

Watson: ...and you go up on the rise up there...

Ferreira: The rise, yep.

Watson: ...flooded all that way through there. And we had the avalanche and, when we had the avalanche...

Ferreira: Uh huh.

Watson: ...I cut out [uh] over 500 trees from a log ca- from the [uh] state cabin to, to the bridge.

Ferreira: Wow.

Watson: 500 trees off the trail, destroyed a number... destroyed bridges, destroyed all all...

Ferreira: All the cottonwoods there, yeah.

Watson: Yeah, it loved, that used to be a really dense forest of cottonwood, birch, willow – and big trees like 100 foot-ers.

Ferreira: Wow.

Watson: And it leveled every one of 'em. I mean it took 'em all down. Only a few birch survived. All the cottonwoods we cut, I mean we cut for three weeks on that trail...

Ferreira: So what about Sheep Camp and its flood history, I mean it's obviously flooded before...

Watson: Sheep Camp's flooded so many times, every, almost every year...

Ferreira: It's flooded...

Watson: ...I was, I started in '80, I left in '99, it flooded probably 16 years out of that 19, pardon me 16 out of 20.

Ferreira: What was the response to that? Rebuild it?

Watson: I rebuilt the bridge two, three times to go to the campsite. And it was a pretty good cut there for a while, we put in some [uh], we put in [um, uh] we anchored the banks and [uh] and it just tore everything apart. You know, when it gets going up there it's just...

Ferreira: Can't stop it.

Watson: ...you can't stop it, and that's why the thing is important at Pleasant- at the Sheep Camp, where the, where the station is now, when, when I first built that camp ground at Sheep Camp, the banks...

Ferreira: Now, are we talking about old Sheep Camp by...

Watson: No, we're talking about new Sheep Camp.

Ferreira: New Sheep Camp, O.K.

Watson: When I first built new Sheep Camp...

Ferreira: O.K.

Watson: ...[um] the bank along the river was about five, six feet high.

Ferreira: Hm.

Watson: So, the river was at least three feet below the bank, the top of the bank, you know, it wasn't like it is now. And it was, it was a the- it was one of the most beautiful places on the trail. It had, it had [um] it was all level, we leveled it all out and it had, that was our camp site. We, we had enough camp sites there for, I don't know, probably about 20, 20 people to camp out there. And then we had a big deluge, in a low, and it was just, we, we hauled in all fill, everything...

Ferreira: (laughs)

Watson: ...it scoured it all down to rock.

Ferreira: Wow.

Watson: Took all the topsoil, all the mineral soil out, took everything.

Ferreira: Hm.

Watson: Pulled down all the trees, and we had just, we had just completed it two years before. So we had to start over again. And that's why it's, it's, it's, it will never,

it will never survive as a campsite. And it's... you can't keep pushing it to the East because you're moving into wetland and number one, the other thing, and I told him this last year, is that's prime habitat for grizzly bears...

Ferreira: Really?

Watson: ...for black bears and grizzly bears up there, they, they love it up against – because we used to have a spike camp over there...

Ferreira: Uh huh.

Watson: ...when we were working on the [uh, um] they, they wouldn't let, that was before we had our, we could stay at the ranger station. We had our own camp up there. So it was up against the mountainside, right underneath the waterfalls, it was really pretty... but I had to pull it out 'cause there's too many bears...

Ferreira: Huh.

Watson: ...and they weren't bothering us but it was just the fact that, it was the habitat...

Ferreira: Sure.

Watson: ...so I said "no, we gotta get out of here" so we let it go back.

Ferreira: So you have seen grizzlies right at Sheep Camp...?

Watson: Um hm. Yeah. Not often...

Ferreira: Yeah, but they're there.

Watson: ...usually in the spring. 'Cause they'll come down and they'll... but then they head down, then they head up, they head up the Norse...

Ferreira: Yeah.

Watson: ...they go to the Nourse Canyon. And the only time they'll come, they're, they're there in the spring and they're there in the fall.

Ferreira: Runs.

Watson: They come down for the Salmon runs and they run all the black bears out.

Ferreira: Huh. Interesting.

Watson: 'Cause once the big boys come in, the black bears take off.

Ferreira: Yeah.

Watson: 'Cause they kick their asses.

Ferreira: (laughs)

Watson: I've seen 'em fight many times...

Ferreira: Have you? (laughs)

Watson: ...and they don't last long (laughs)

Ferreira: So uh.

Watson: Yeah so I mean so you, you, virtually you got a, a situation there that you have a dynamic water course throughout almost the entire length of the trail, except from that point from, from [uh, uh] Canyon City till you get to 10 mile bridge but even then the water courses come down off the trail. Like the 10 mile bridge thing? That's flooded out, that flooded out all w- all the way down the trail, down to the next, next [uh]...

Ferreira: So the, the stream gets running so heavy that it just...

Watson: Oh yeah, it...

Ferreira: ...starts hitting the bridge?

Watson: Oh yeah, tore the hell out of the old bridge there.

Ferreira: Really. Interesting.

Watson: That used to, there used to be a big [uh, um] they had just big logs in there that they'd just drop down in there...

Ferreira: Um hm.

Watson: ...that were in, so we tore them all out so that it could get... yeah it just it, it comes, it, you s- I've seen it come over the top of the bridge...

Ferreira: Hm.

Watson: ...and completely envelope the bridge.

Ferreira: Wow.

Watson: You don't go across that sucker when it's flowin... 'cause,... have you ever been down, walked over there...?

Ferreira: Oh yeah. There's a drop, 'bout two hundred feet, something?

Watson: ...yeah straight.

Ferreira: Straight down.

Watson: Straight down.

Ferreira: Um hm. You don't want to get washed down there.

Watson: No. oh you'll r... no, that's beautiful, there's beautiful moss and there's a lot of artifacts in there as well... now there's some old traces of [uh] some old trails down below, I've climbed down, down in the canyon.

Ferreira: So what, what do you do about Sheep Camp? What do you think they should do?

Watson: Well, num, number one you, you can't go, O.K. you can't, you can't go to the West they're not gonna let you in the west 'cause there's too many...

Ferreira: Artifacts.

Watson: ...[uh], artifacts. It is, there is places on the western side of that river that are, that would be ideal for a camp site...

Ferreira: Get a, get across the river and you gotta deal with all the artifacts.

Watson: You'd have to bridge two, you'd have to build two bridges, one to get across, one to get back.

Ferreira: Um hm.

Watson: Or you could have them use the same bridge, but [uh] or you could, you could [uh], I think the, the, you can't go to the East any further cause it's really wet through there...

Ferreira: All the way to the cliffs.

Watson: ...the, the mountain sheds water off it, he-the, all those mountainous streams coming down, everywhere. So you've got water courses all through there, and you, what do you want to do, have like this built up tent platforms all through the – I mean it looks like sh*#.

Ferreira: Yeah. Well that's the only, that's the only way you can do it, you're forcing it on this side...

Watson: Well you either do it that or you do it the way we did it, is that we hauled in all the material...

Ferreira: Bring in fill, right which is pretty like, labor intensive and you're probably gonna lose all that in the next big flood, you know...

Watson: Right well when we did, when we did it, we, we built the whole thing, everything, it was beautiful when we got done.

Ferreira: How long did that last?

Watson: It lasted two years. But I mean we didn't lose all those camps, we only lost the overflow camps. See and I have kept that, that one course in there open so that the water can flow over it and come down, but there was always that (rent?) right there that was, that you needed, you needed to, whenever the water got high you had to go in there and build it up and you had to constantly... and no one's looked at it since I left. 'Cause we would always go in and check that and build it up so that it would hold, and that's where it broke.

Ferreira: Yep.

Watson: That's exactly where it broke at. And now as this is part of our yearly maintenance thing and that's the thing that they don't have now is they don't have a regime, sort of an understanding about you go in first, the first thing you do, you go in and you clear the trail...

Ferreira: Um hm.

Watson: ...then you go in and you clear all the drains, all the drains out so you open up the, so you prepare for the spring run-off.

Ferreira: Right.

Watson: Then you go to your construction projects. And

then you have, and they, they, there's no hierarchy that they've developed.

Ferreira: No, they have no regime.

Watson: You know it's just like, "uh O.K. we'll do this, O.K. well maybe we'll do this as well." Every year I knew what I was doing the first... I, I knew what I was doing the next year, and I knew what the projects were, and the only thing that would disrupt that is if we had an emergency, which we almost always did, and we'd have to go to something else. But is it... because of the fact that you have such a limited of sp-space up there, Sheep Camp, the campground has to become a priority for what you're doing. And the bridge that you have at, at, at [uh, um] 6 and ½ , the bridge that you had at, at [uh] at the Rock Garden, well number one you have a limited snow pack this year, almost no snow this year, it's been really dry, so your bridges aren't, you, you know your bridges aren't your main priority, I mean you should be going – unless they're really dangerous to the situation – which, the Rock Garden, is no dangerous situation ever. It used to be, when I built it, 'cause it used to be a dynamic course, but it's changed. So you have to go in it, but you gotta have a plan, man, you gotta have somebody that knows what landscape, what ecology is, what, what, what [uh] what stream ecology is like and what, you know, can look at the land and see what's going on. And not just go "Oh, O.K. this looks great it's, it's f---ing March, hell there's no water out there, let's fill it in here."

Ferreira: (laughs)

Watson: And you, you know that if your gonna put roots, nobody wants to sleep on a root...

Ferreira: No.

Watson: Plus there, I mean, that's f---ing nuts. I mean we built, we had 35 campsites there. Every one was constructed. No naturally occurring sites, none of them.

Ferreira: Did you have to root out stuff or did you build it up...?

Watson: Yeah. We would, if we needed to, if it was that bad I'd never use the site.

Ferreira: Right.

Watson: And I never w- I only had one section in there on the East side that we filled every, s- every one, we had to dig out a lot of roots to, to open it up.

Ferreira: Did the trees, did it affect the trees at all?

Watson: Most of the trees were, were dead.

Ferreira: Were dead.

Watson: Yeah.

Ferreira: Interesting. So what about puttin'...

Watson: But you know a lot of stuff was down, we had stuff that had fallen, on the, on the forest floor we had to clear all that out...

Ferreira: Sure.

Watson: ...and you have to open it up 'cause most people use dome tents now so you can't, it's not like a little A-frame.

Ferreira: No, you have to have space.

Watson: So you've gotta have some, some space and you have to, you have to sort of under, understand that, if you don't have a trail, if you don't have a distinct trail system set up for them, they'll walk everywhere.

Ferreira: Um hm.

Watson: You know? Anywhere they want to go they'll just go. And then it just becomes a beat, a beat-up, you know it's beat to death, it's, it's you kill everything...

Ferreira: Alright.

Watson: ...so that, I mean, I think that the ideal situation there is, it's not ideal but [uh], I would move the camp site to the North of, of either North of [uh] the 11 mile bridge or at, move the main camp site to Finnegan's point, I mean to Pleasant Camp.

Ferreira: Hm. What about like up behind the cabin?

Watson: No good.

Ferreira: Why not?

Watson: It's boulders, it's a boulder field.

Ferreira: Rocky.

Watson: Rocky as hell plus you got a lot of artifacts up there. Plus we have, there's probably, you won't be doing a lot of digging up there 'cause there's probably fifteen little pit toilets...

Ferreira: [is that so?]

Watson: ...and the water's too close to put in any more [um, um] outhouses.

Ferreira: Yeah.

Watson: The water table's too high. And you're up high, so if you're gonna have, you have, have outhouses, you're gonna have fecal contamination of the water, of the ground water.

Ferreira: Hm.

Watson: Because it'll, it, because its just flows all through there 'cause it's really porous, and I'm not, and digging in there, we're not talking about, like, little rock, we're talking about huge boulders...

Ferreira: Boulders, yeah.

Watson: And a lot of them have been ground down by... and they're smooth and they're...it's really, its, it, sucks...

Ferreira: Tough work.

Watson: Yeah, it's tough work. And we never really had very many camp sites up there, even when it was full, everything used to be down below, that was the main camp site...

Ferreira: That little cabin, yeah.

Watson: ...and there were a few camp, over-flow we let 'em camp around the cabin...

Ferreira: Um hm.

Watson: ...but that was it. Anything above that... and then there's some beautiful sites up above, but, you know...

Ferreira: Tough.

Watson: Yeah.

Ferreira: They'd be really tough to develop.

Watson: They'd be tough to develop and you you don't really want to f--- that place up up there.

Ferreira: No, you don't.

Watson: So, I mean, it's not really from...anything North of Sheep Camp there's a lot of, there's a lot of archeological [uh, um] significance in that area, a lot of artifacts in that area 'cause I've, almost everything I've ever excavated I've found something.

Ferreira: Um hm.

Watson: You know, any bridge, any bridge abutment, anything I done, I did, was, I found something there.

Ferreira: Tough problem.

Watson: Yeah, I mean so you have two, you have two choices you can either put it around the 11 mile bridge or you can, and, and we're talking about a mile, on a flat plain. You know, people are just gonna have to do it. 'Cause you can't, you can't make, try to make nature, unless you want to reconstruct that whole...you wanna go in there and you wanna build it, you wanna go in there and really [uh] try to control the river. And that would be, that would mean you'd have to armor all the banks and they don't have the training or enough people to do it.

Ferreira: Tough.

Watson: And, and this, and there's no guarantee we- that you can stop it. Because the thing that people don't realize when they come here for, for a little visit...they don't understand that, 'oh the river's not moving too fast,' I mean I have seen that river, it is so incredibly violent...

Ferreira: It can be.

Watson: ...and the velocity, because you have so much verticality on those slopes, coming, on the streams coming off the mountains, there's, there gets so much velocity behind the water that it just tears the sh*# out of everything. I mean I, I have, I have stood in awe and looked at that and watched it just rip the sh*# out of everything.

Ferreira: I been there, man, it's powerful.

Watson: I mean it's...

Ferreira: I've seen huge boulders rolling down the river.

Watson: ...and it's taken almost – you know it's almost every bridge that I've built on that trail has been under water at one time or another.

Ferreira: Hm.

Watson: Has been, I mean, so, you have to look at it that way you have to, you have to be, and the other thing too is that they sort of neglected I think there's no real sense of, I don't get any sense from Mike or any of these people that, that they're, they're really trying to instill that this is an historic trail, that, "O.K. remember this a historic trail, try to replicate the stuff that you found there before, don't try to do anything new and...outrageous, you know, try to find, a"... they only, did they even talk about guidelines today as far as construction?

Ferreira: No.

Watson: I mean I gave Tony those guidelines that, that I put together and I don't, don't even think she's looked at 'em. But we haven't completed that. That's why it's so essential, I think, that you and I and Toni do the treatment plan for that trail because we're the only ones that have that, number one, I have the most experience of anybody alive on that trail, that worked on it, you have invested interest and you care about that trail, which most people don't, and you understand the dynamic, and you can't just set people out there and, because when I came here I had, I had already worked seven years doing trail work. Five years as a supervisor, and when I got here in 1980, I mean, it took me five years before I was really comfortable with what was going on.

Ferreira: it takes time..

Watson: Yeah, well no, I just think it's, it's one of the most essential things about it...

Ferreira: So it's historic integrity versus practicality.

Watson: Right.

Ferreira: And your approach to that was...

Watson: And my approach was that you take the extra, you make the extra effort to make, to integrate the structure into the landscape. You try to, try to maintain... what I did is I went back and looked at a lot of old historic bridges and stuff that they'd use...

Ferreira: Use just throughout...

Watson: During, during that era and...

Ferreira: The CCC...

Watson: Yeah, looked at some of the stuff, but I tried to, tried to do some of the stuff that they had, some of the really early stuff here in the 50s and stuff...

Ferreira: O.K.

Watson: And some of it was O.K., most of it was, [um], you know, structurally most of this, like I told you before, the the people didn't care.

Ferreira: Right.

Watson: But, it had, it was obvious that in the 70s and from that point even in the 50s is that nobody gave a sh*# what they built...

Ferreira: Hm.

Watson: ...and there was no effort to make, to integrate the structure into the landscape, or have any sort of semblance, if you, if you look at some of the old structures, of course when they did the Gold Rush they didn't care either...

Ferreira: Sure.

Watson: ...but you can try to replicate that same sort of style... design motif...

Ferreira: Sure.

Watson: ...and just upgrade it structurally and make it into something that was worthwhile.

Ferreira: So historic integrity in that case was an aesthetic decision...

Watson: Absolutely, from, from the very beginning when I first started here, and I, I learned that when I was

in Glacier is that we tried to integrate everything into the landscape. And the thing that came about for me is that, dealing with the park, that a lot of the people, they just… no one cares.

Ferreira: Whatever, yeah.

Watson: Whatever it's I mean it, I, it goes into the point where you cut, when you're cutting trees off the trail, you cut 'em into 45, so that they look more of a natural as you move through the space, you don't see these blunt cut ends and…

Ferreira: Yeah.

Watson: …so, and how you cut the brush and like how we were talking about you don't cut everything down really quick and…

Ferreira: Um hm.

Watson: …[um] and especially the, you know, when you build rockwork, because for John it was just like "just put a couple of wooden steps in there and that's fine"…

Ferreira: Um hm.

Watson: …it was really utilitarian and that was all, he didn't care about anything else…

Ferreira: He didn't care about the aesthetic, yeah.

Watson: …and I didn't believe in that, I thought that, that it was essential because it's an historic trail that you try to maintain some sort of integrity. You try to, to maintain that sort of character integrity of the story, of the site, and show the significance of it, by not just putting up these, these steel bridges which I think are horrible…

Ferreira: Right.

Watson: …I don't think they are there's, there's no, there's, there's no reference at all to the [uh] to the past, to the historic character of the trail, and they just don't belong there, you know, they don't, they, it's not part of the character of the trail so…

Ferreira: So…does that carry over into like, would you advocate, if you could, following, re-routed sections of trails so that you're actually following the, the known route of the…?

Watson: Well, now, yeah, I, I've always figured, I've always felt that, that the trail should be, we should try to put the trail back the way it was before. I thought that we should go, put it's sort of a trade off because if you do that, people, by nature, will take things…

Ferreira: Hm.

Watson: …and they'll…but the other thing is you, the other side of the coin is, is that no one knows it's there…

Ferreira: That's true.

Watson: …and the only people who knows it's there, are the, are the so called professionals or, or [um]…

Ferreira: Historians.

Watson: …archeologists or historians, so it's a very elitist i- ideal of, of interpreting a landscape.

Ferreira: Yeah.

Watson: So, so therefore you can, yeah, it's, it's, it's a tough call. But you got a lot of that stuff that, that's is, essentially just, you know, degrading into the, into the soil. And, when I first got here, you know, I used to go on my time off, when I was off of work, I would go would go hike through and go back into these old areas and just sort of look and you could see the, you know, like the, I found these big old campsites across from the trail, across from Pleasant Camp, you know, there's old garbage dumps and stuff and you could see the character of the land and why they chose a specific place to camp.

Ferreira: Um hm.

Watson: You know, an, and then you could, you could find old remnants of the trail and, and where they'd been, that's, you know that just sort of really brings, sort of the history…

Ferreira: Sure.

Watson: …you know it, it brings the history right to you, and you sort of…because I think a lot of people who've hiked the trail just go it's, "oh O.K. it's the Klondike, you know" if they go beyond the historic parts it's like "O.K. we gotta do this because everyone else did it"…

Ferreira: Right.

Watson: ...instead of like, when I, when I was first went up there, and I was building stuff, I was going "wow, just imagine these guys they built that f---ing tram"...

Ferreira: (laughs)

Watson: ...you know I mean they hauled all that stuff on their backs, you know...
[End of Tape #3]

[Begin Tape #4]

Ferreira: Back to historic traces and [um]... what are the known traces that you know of, Watson, that you've come across?

Watson: I know where some traces of [unintelligible] are at (laughs)

Ferreira: Ah, what a fine record we're building here... (laughs) [um]

Watson: So obviously, no, the historic traces are [um]...

Ferreira: Where do they start? Let's start from the South end of the trail.

Watson: ...well the South end of the trail now there's a, there's a [unintelligible], if you go to the top of the first hill, there's a, there's a trace that goes straight out, when you come up to the top and you take that kind of – you come right to the top and then you're walking down there's like the rocks on both sides, you take a little left and then you go out to the point where you see the river...

Ferreira: Uh huh?

Watson: ...there's an actual trace that goes straight and follows that hillside, almost all the way to f- [uh, uh], almost all the way to Finnegan's Point...

Ferreira: Huh.

Watson: ...there's an old trace of the trail the...

Ferreira: So it follows the Eastern hillside...

Watson: Right, and it's, most of it's gone, it's very old, it's, I don't even... see that first part of the trail is, none of it's really historic...

Ferreira: Right.

Watson: ...till you get down to the bottom...

Ferreira: K.

Watson: ...there's still some, there's, there's traces in there.

Ferreira: K.

Watson: [um] there's, so if you go...as you go down to the... let's see, the next one would be where?

Ferreira: There around Finnegan's?

Watson: [um] there's some traces, yeah, there's some trail traces across the river...

Ferreira: K.

Watson: ...on the West side...

Ferreira: Near Finnegan's

Watson: Yeah, on the other side you have to cross the river and you have to walk that bank over there, then, then you kind of walk... and you can find some but the river's changed so many times there's, there's some old traces along the far Western shore, but North of Finnegan's, where they call the [um] "end of navigation"...

Ferreira: The head of navigation...?

Watson: The head of, the head of navigation...

Ferreira: Right.

Watson: ...there's like fingers, there was like four fingers that moved through there, just big, main branch of the Taiya comes off to the, to the West, and then you have the smaller branches that come through the weeds, and then they just kinda finger their way through...

Ferreira: So why, why is it called the head of navigation, I mean are there falls there or is it just become too...

Watson: No, the streams are too...

Ferreira: Swift.

Watson: No, they're not too swift, they're, they're, only in flood stage would they be swift…well, there, there's some, there's some velocity but the, they're too shallow.

Ferreira: And it's tough to pull anything up there.

Watson: There's some areas there, you know you get some of them where the bank cuts, up against the bank it gets deeper in there, but most of it in there – 'cause I've walked that, all of that…

Ferreira: It's really shallow and rocky.

Watson: …yeah I've walked it in, [uh] the year that I got hurt, we snowshoed out through that area. [Um] so I mean I've walked that river from Canyon City, well from up above, from all the way, on both sides of the river…

Ferreira: Have you ever walked the canyon?

Watson: In the winter?

Ferreira: Yeah.

Watson: No.

Ferreira: Yeah… that's very…

Watson: No thanks.

Ferreira: (laughs)

Watson: I've walked the canyon in, during the summer.

Ferreira: Really?

Watson: Yeah.

Ferreira: Through the river…canyon?

Watson: Right.

Ferreira: Really.

Watson: Through Canyon City.

Ferreira: Wow. I mean I can't…

Watson: From Canyon City to Finnegan's…to Pleasant Camp.

Ferreira: Really? That's interesting. What did you find?

Watson: A lot of sh*# and it's hard hiking, man it's tough…

Ferreira: Yeah.

Watson: … it's tough.

Ferreira: I mean you gotta get down in the water and…

Watson: Yeah you gotta, you gotta thread your way through, you have to, you have to climb up on the bank…

Ferreira: Uh huh.

Watson: …and it's really steep and you have to [sounds like, "hold on by your ass"?]…

Ferreira: Wow.

Watson: Yeah Pat Moore and I did a lot of it.

Ferreira: Wow, interesting, 'cause that's… I figured there's probably a lot of artifacts…

Watson: Oh there's lots of artifacts down in through there…

Ferreira: Yeah.

Watson: …there's a lot of stuff in there. And a lot of stuff that's been scoured out but, I mean, you don't really go, you don't go up there when the river's up…

Ferreira: No.

Watson: …'cause it's, it's…

Ferreira: Flowing.

Watson: …it is rockin' through there.

Ferreira: Yeah.

Watson: But I've [um] well let's, let's start back… so this…

Ferreira: The fingers.

Watson: …the fingers, as I said, I've walked all the way up on both sides of the river and all through there and there's,

you find some old traces of trail, there's a lot of game trial in there too but you can, you can see part of it now and then and once you get to Finnegan's there some [um] there's some traces of trail before you get to Finnegan's, actually, to the East of where the landing site's at…

Ferreira: O.K.

Watson: …there's traces of trail back in through there. And then if you, once you get to Finnegan's there's the campsites here, but if you go out to the East there's an old, there's remnants of an old wagon, there's a lot of stuff back in the devil's club back in there that they used to go… Karl can tell you about that…

Ferreira: Um hm.

Watson: …there's a lot of old remnant trails though, back in there – that are historic.

Ferreira: O.K. How can you identify these? Are they, is it just the trees are not there or, or is there…

Watson: Well you can, usually you can find, actually find some traces of the actual trail…

Ferreira: And how do you know though, I mean how do you, how can you, visually how do you see that, is it just the fact that the vegetation is not as developed…?

Watson: Well you can see how the, you can see how the vegetation is, is not as, is not as dense or you see where it's a break, and it's not a naturally occurring… you know, and, and a lot of time you'll see younger trees coming up…

Ferreira: Um hm.

Watson: …but usually you'll see that, that there'll be game trails through there too 'cause they still use those trails, which has kept them open…

Ferreira: Right.

Watson: …but what you'll find is artifacts along the way so you know that it's not you know the, the [uh] bears aren't, aren't usually carrying any cans with 'em…

Ferreira: No.

Watson: …but th-they can.

Ferreira: Gotcha.

Watson: But yeah, you can see, there are some really… especially when you get to Pleasant Camp.

Ferreira: Um hm.

Watson: If you, once you cross the river, it's, it's quite obvious, even though the brush has grown up you can see… when you get into the dense trees where the brush is at it's very difficult…'cause the brush is so dense.

Ferreira: So the historic trail crossed the river at…frozen highway, where that interpretive sign is? Is that what you think?

Watson: Yeah there's, there's, it, there's…

Ferreira: There's like a big rock in the river and there…

Watson: Yeah I know exactly where you're talking about.

Ferreira: Yeah.

Watson: There's, if you go, if you cross right across there…

Ferreira: Uh huh.

Watson: …now that's really where the canyon starts.

Ferreira: Right.

Watson: Right below that is where it starts to drop.

Ferreira: O.K.

Watson: But if you cross over there, there's a lot of artifacts across the other side…but the, but the real trail starts at, where Pleasant Camp is at.

Ferreira: O.K.

Watson: And then it goes across the river.

Ferreira: Hm. Where the modern Ple- Pleasant Camp…

Watson: No.

Ferreira: Old Pleasant Camp.

Watson: Old Pleasant Camp.

Ferreira: O.K.

Watson: Almost directly south of old Pleasant Camp, you cross the river there and you can follow along there's old campsites in there...

Ferreira: Um hm.

Watson: ...there's a big [um] spruce forest in there that's [uh] really dense and you can still see the remnants in there... and then you can follow that all the way up to Sheep Camp.

Ferreira: Interesting.

Watson: Now there are also, there are also some remnant trails that, that you can see when they were, when they were putting in the telephone pole...

Ferreira: Hm.

Watson: ...along the slope. Along the highline that you go from Canyon City to Pleasant Camp.

Ferreira: K.

Watson: You go below the trail to the, to the West...

Ferreira: Uh huh.

Watson: ...you can find old remnants of trail where they actually put in... and you can find old telephone poles.

Ferreira: Sure.

Watson: So below the existing trail. But you know where the, you know where the, I showed you where the old trail came up from Canyon City...

Ferreira: Yeah, the, where it intersects.

Watson: ...there's also a trail that follows along the river...

Ferreira: Yeah.

Watson: ...below the [unintelligible]. But you have to know where you're going down there or you'll never find it.

Ferreira: Yeah.

Watson: Roy and I used to do this all the time, Roy and I would go down, we'd look for stuff all the time.

Ferreira: Uh huh. So do you think they actually used the lower trail i- in the summer time?

Watson: No. No they used the winter trail

Ferreira: Winter trail...yeah...O.K.

Watson: No they, there's, there's artifacts everywhere on the highline.

Ferreira: So in terms of the summer trail between...

Watson: Now some people may have, you know, you...

Ferreira: Sure.

Watson: ...I'm sure that not many because of the water, just the velocity would be too much...

Ferreira: Right, right. So the summer trail between Canyon City and Pleasant Camp...how close is it to what we've got going... on our trail...do you think?

Watson: Between where?

Ferreira: [uh] Canyon City and, and Pleasant Camp. Just... through the camp.

Watson: Well if... first of all there's, where, where the [uh]...

Ferreira: I mean there's a trace, obviously.

Watson: ...where the camp is at, trail, trail crew camp is, none of that's... from there until the trail comes from the river up...

Ferreira: Right, right.

Watson: ...that's where the trail starts...

Ferreira: So if...

Watson: ...the rest of that's all new...

Ferreira: O.K.

Watson: Relatively new.

Ferreira: ...before that intersection?

Watson: Yeah and see I've, I've tried to figure out [um] many times, I've, I've often thought, well, if you look at some of the old photographs you can see that whole hillside is denuded...

Ferreira: Um hm.

Watson: ...they cut every f------g thing alive up there...

Ferreira: Yep.

Watson: ...for firewood, whatever. But I mean, that whole area... and then there was the burn because on the, on those, on the campsite, especially to the ones that you're talking about the ones that [unintelligible] down the canyon, that's all been burned, if you get down to the duff there's lots of charcoal.

Ferreira: Charcoal... [unintelligible]

Watson: So yeah, all of... from that point, where it comes up off... there's old stoves there's all kinds of snow down in there, I took a lot of pictures of that...

Ferreira: Yeah we have pictures of that. So what about [um] about Sheep Camp?

Watson: Yeah I forgot, to, I wanted to see some of your shots that you took, too. Send me a disk when you get home.

Ferreira: I will.

Watson: [Um] Sheep Camp everywhere.

Ferreira: North of Sheep Camp?

Watson: Yeah there's [uh]...

Ferreira: I mean there's some Sheep Camp to the Summit and you think it's pretty much the same... in terms of...?

Watson: They followed some of that old trail but, you know, it's so, it's so...

Ferreira: There's so many different routes.

Watson: There's so many different routes in there, because once you get past the, the last, once you pass the last bridge...

Ferreira: Um hm.

Watson: ...they pretty much stayed on that one till you get to the ro- to the, to the...

Ferreira: Stonehouse?

Watson: ...yeah to the stone...

Ferreira: Yeah.

Watson: ...then they're everywhere, man, I mean because you would, you could just imagine they'd...

Ferreira: They'd pick a route and go.

Watson: Yeah an- and as you get up on the top, on the, on the bench, you go off to the West and there's, there's old traces across the other side of the river.

Ferreira: Hm.

Watson: And if you really want to find stuff you gotta, it takes you years.

Ferreira: Yeah.

Watson: Up all through there, and...

Ferreira: [unintelligible, sounds like "checked out"] Yep. Alright, well right on.

Watson: You know now, all the, everything from Pleasant Camp to Sheep Camp on the, there are now still some remnants of [uh] once you get past new Sheep Camp, there's s-still a lot of artifacts and when I built the bridge there, the [ah] the avalanche bridge that [ah] kept falling down...

Ferreira: Um hm.

Watson: ...[uh] we found a lot of artifacts in there...

Ferreira: O.K.

Watson: ...so there, there were still... so that, as they came up, they still spread out and went through that whole [uh] both sides of the river...

Ferreira: K.

Watson: ...the main trail was across the other side.

Ferreira: The Western side of the river.

Watson: 'Cause if you look at some of the old Sheep Camp photographs, there's, sh*#, everywhere.

Ferreira: Sure.

Watson: And it goes right up to the top, and right up to the mountain side, and... so they were everywhere.

Ferreira: Alright, well, that's the traces section.

[End of Tape #4]

Appendix D: Significant Mile Point Markers along the Recreational Chilkoot Trail

The mile points displayed in the table below and on the following page are only a partial list of significant landscape features found along the recreational Chilkoot Trail. The mile points were generated from the ARCGIS Chilkoot Trail shapefile produced by the regional office and park personnel in 2003, updated in 2008. GPS data collected during the existing conditions survey was then plotted and mile points were generated for the selected points below. This list is only a partial one, as GPS data exists for a range of other landscape features such as views and vistas, small scale features, archeological sites (restricted access) and other unique landmarks or points of interest. Contact the NPS Alaska Cultural Landscapes Program lead in the regional office, Anchorage, Alaska for a complete list of features.

NAME	MILE POINT	LONDD83	LATDD83
Trailhead	0.00	-135.3453476	59.5124793
Trailhead Turnpike	0.02	-135.3450570	59.5127478
STONE STEPS (SAINTLY HILL BEGIN)	0.03	-135.3449675	59.5127868
STONE STEPS (SAINTLY HILL END)	0.56	-135.3427355	59.5193731
Stairway to Heaven (Bridge)	0.93	-135.3404078	59.5241755
Boomerang (Bridge)	1.05	-135.3413002	59.5256525
Steel 1 (Bridge)	1.53	-135.3389626	59.5312758
Taiya Spur Intersection	1.59	-135.3398760	59.5320410
Dry Fork (Bridge)	2.36	-135.3360863	59.5422936
Steel 2 (Bridge)	2.47	-135.3350750	59.5435012
Double 3X12X20' plank walk	2.52	-135.3343225	59.5440091
Single 3X12X12' plank walk	2.59	-135.3339039	59.5450017
Beaver Boardwalk (south)	2.68	-135.3335918	59.5461520
Beaver Boardwalk (north)	2.90	-135.3334051	59.5487807
Single 3X12X50' plank walk	3.08	-135.3343157	59.5512227
HOSFORD'S CABIN	3.13	-135.3345606	59.5518934
Ouzel Boardwalk (south)	3.17	-135.3350067	59.5523714
Ouzel Boardwalk (north)	3.18	-135.3350048	59.5525690
Ouzel (Bridge)	3.19	-135.3349693	59.5526271
Ouzel Turnpike	3.19	-135.3350089	59.5527043
Double 3X12X8' plank walk	3.24	-135.3352464	59.5533246
Eagle Rock (Bridge)	3.29	-135.3352228	59.5540366
Turnpike	3.67	-135.3357138	59.5590886
South Ditch (Bridge)	4.43	-135.3373896	59.5690597
Ditch System (south)	4.47	-135.3375622	59.5694322
North Ditch (Bridge)	4.77	-135.3373888	59.5736026
Ditch System (north)	4.86	-135.3363416	59.5745741
FINNEGAN'S POINT	4.94	-135.3348560	59.5754190
Bridge of Dankness (Bridge)	5.42	-135.3273266	59.5800520
Soggy Bottom (Bridge)	5.51	-135.3271304	59.5812747
Freeze (Bridge)	5.71	-135.3252980	59.5836945
Split Log 1	5.83	-135.3242303	59.5848734
Split Log 2	5.86	-135.3246623	59.5852247
Double Puncheon	6.01	-135.3259513	59.5871234
TRAIL RE-ROUTE (2003)	6.35	-135.3249420	59.5910740
6.5 Mile (Bridge)	6.43	-135.3236959	59.5918575
Rock Garden (Bridge)	6.82	-135.3256636	59.5958813
ROCK GARDEN	7.21	-135.3261270	59.6009430
Canyon City South (Bridge)	7.73	-135.3246994	59.6071109
CANYON CITY CAMPGROUND	7.76	-135.3242070	59.6076320
Canyon City North (Bridge)	7.77	-135.3248146	59.6075983

NAME	MILE POINT	LONDD83	LATDD83
Suspension 1 (Bridge)	8.01	-135.3282931	59.6105994
Frenchy's (Bridge)	8.10	-135.3279236	59.6118622
STONE STEPS (CC BOTTOM)	8.19	-135.3287042	59.6129940
CANYON CITY TRAIL CREW CAMP	8.24	-135.3269680	59.6138850
STONE STEPS (TRAIL CAMP SPUR TRAIL)	8.39	-135.3284888	59.6155255
STONE STEPS	8.58	-135.3276008	59.6180666
HISTORIC TRAIL INTERSECT	8.62	-135.3276611	59.6185859
10 mile (Bridge)	9.74	-135.3087360	59.6292168
Black Bog Turnpike Complex 1	10.18	-135.3014220	59.6343035
Black Bog Turnpike Complex 2	10.22	-135.3008576	59.6346874
Historic Taiya Crossing (Camp Pleasant)	10.33	-135.2989770	59.6355340
Pleasant Camp puncheon bridge	10.65	-135.2940711	59.6385528
PLEASANT CAMP (campground)	10.65	-135.2936850	59.6385180
STONE STEPS (PLEASANT CAMP)	10.72	-135.2930568	59.6390220
Suspension 2 (Bridge)	10.85	-135.2900056	59.6387599
Shovel and Broom (Bridge)	11.03	-135.2889590	59.6411406
TRAIL RE-ROUTE (1995)	11.42	-135.2817260	59.6442360
TRAIL RE-ROUTE (2002)	11.51	-135.2797720	59.6449130
TRAIL RE-ROUTE (2006)	11.70	-135.2759110	59.6467058
Zig Zag 2006 (Bridge)	11.97	-135.2720508	59.6489909
Old Sheep Camp Bridge	12.09	-135.2721304	59.6502652
Avalanche (Bridge)	12.40	-135.2680940	59.6536198
SHEEP CAMP RANGER STATION	12.66	-135.2674760	59.6569100
SHEEP CAMP CAMPGROUND	12.81	-135.26783800	59.65906700
12.6 Mile	12.83	-135.2681543	59.6589515
TRAIL REROUTE (2007)	12.84	-135.2679331	59.6595054
Salad Bowl (Bridge, washed out, 2007)	12.88	-135.2680109	59.6596121
12.7 Mile (defunct, 2007)	12.90	-135.2678360	59.6599548
Mas O' Menos (Bridge, 2007)	12.93	-135.2671277	59.6602303
Blueberry (Bridge)	12.99	-135.2674788	59.6609845
Big Step (Bridge)	13.06	-135.2674313	59.6618850
Culvert Crossing (Glu-lam)	13.07	-135.2675604	59.6619914
13 Mile (Bridge)	13.26	-135.2666627	59.6644302
Boardwalk 1	13.27	-135.2667940	59.6646208
Single Plank	13.43	-135.2664632	59.6667346
Boardwalk 2	13.51	-135.2663626	59.6677259
Forest Boardwalk	13.53	-135.2665249	59.6681007
CHOYINSKI GRAVE SITE	13.76	-135.2661242	59.6709072
STONE STEPS (STONE HOUSE GATEWAY)	13.91	-135.2658206	59.6727863
TRAMWAY SPROCKET	13.98	-135.2651755	59.6736611
STONE HOUSE AREA (Begin)	14.07	-135.2642727	59.6749126
HISTORIC STONE HOUSE CAMP/CACHE	14.25	-135.2622105	59.6770204
AR&T POWER STATION RUIN	14.75	-135.2538992	59.6814674
TENSION STATION RUIN	14.89	-135.2522220	59.6832326
TRAMWAY BOILER	15.30	-135.2474584	59.6880962
SCALES	15.40	-135.2470330	59.6891450
KNOCK-DOWN BOATS	15.90	-135.2390403	59.6947519
STONE MONUMENT/CHILKOOT PASS	15.94	-135.2392015	59.6954574
US/CANADIAN BORDER	16.0	-135.2380445	59.6966438

BIBLIOGRAPHY

BIBLIOGRAPHY

Adney, Tappan. *The Klondike Stampede of 1897-1898*. (New York, NY: Harper, 1900).

Bearss, Edwin C. *Proposed Klondike Gold Rush National Historical Park, Historic Resource Study* (Washington, DC: U.S. Office of History and Historic Architecture, 1970).

Becker, Ethel Anderson, and Eric A. Hegg. *Klondike '98; Hegg's Album of the 1898 Alaska Gold Rush* (Portland, OR: Binfords & Mort, 1949).

Berton, Pierre. *The Klondike Fever: The Life and Death of the Last Great Gold Rush*. (New York, NY: Knopf, 1958).

Black, Martha Louise. *My Ninety Years*, (Anchorage, AK: Alaska Northwest Publishing Company, 1976).

Carley, Caroline D. "Inventory of Cultural Resources in the Chilkoot and White Pass Units of Klondike Gold Rush National Historical Park." *Reconnaissance Report No. 40.* (Seattle, WA: University of Washington, Institute for Environmental Studies, Office of Public Archaeology, 1981).

Cruikshank, Julie. *Life Lived Like a Story: Life Stories of Three Yukon Native Elders*. American Indian Lives Series, (Lincoln, NE: University of Nebraska Press, 1992).

Dall, William Healey, George Mercer Dawson, and William Ogilvie. *The Yukon Territory The Narrative of W.H. Dall, Leader of the Expeditions to Alaska in 1866-1868 ; the Narrative of an Exploration Made in 1887 in the Yukon District*. (London, UK: Downey & Co. Limited, 1898).

Dearmond, Richard N. & Terrance Cole. "George Holt: First White Man Across the Chilkoot Pass" *Alaska History*, Vol. 21, No.1, Spring, 2006, pp38-47.

Doughtery, K. Tonia Horton and Michelle Curran "Chilkoot Trail Klondike Gold Rush National Historic Park Cultural Landscape Inventory, Level II" National Park Service, (Anchorage, AK: Cultural Landscapes Program, 2001).

Ferreira, Samson L. "Patterns of Interaction: Environment and Culture in the Taiya River Valley 1880-1899" *Master's Thesis*. University of Washington, Seattle. Department of Landscape Architecture, 2004.

Gilbert, Cathy. "Cultural Landscape Recommendations: Chilkoot Trail, Klondike Gold Rush National Historical Park" Draft Trip Report. (KLGO Archives, Unpublished, 1989.)

Goldschmidt, Walter Rochs, Theodore H. Haas, and Thomas F. Thornton. *Haa Aaní = Our Land: Tlingit and Haida Land Rights and Use*. (Seattle, WA: University of Washington Press, 1998).

Griffin, Eve. Archaeological Compliance Report: Conserve Union Iron Works Boiler at Canyon City (KLGO 97-16). Skagway, AK: National Park Service, 1997.

Griffin, Eve. Archaeological Compliance Report: Conserve the Dyea False Front (KLGO 97-30). Skagway, AK: National Park Service, 1997.

Higgs, Andrew. "Klondike Gold Rush National Historical Park, Cultural Resources Program Seasonal Activities Report, 2005". Klondike Gold Rush National Historical Park, Skagway, Alaska, 2005.

Higgs, Andrew. "Sheep Camp Recreational Campground Relocation Project/Cultural Resource--Archeological Survey 2005". Survey Report, Klondike Gold Rush National Historical Park, Skagway, Alaska, 2005.

Higgs, Andrew. "Chilkoot Trail Archeological Inventory Survey 2006-2007: Scales to Summit". Summary Report, Klondike Gold Rush National Historical Park, Skagway, Alaska. 2008.

Hoffman, Richard B. and Judith W. Everett. Klondike Gold Rush National Historical: Park Wayside Exhibit Plan. Harpers Ferry, WV: National Park Service. 1986

Ingils, Rick. "Assessment of Bank Retreat Monitoring Data from 1979 to 2002 for the Taiya River at Klondike Gold Rush National Historical Park." (KLGO Archives, Unpublished Park Document, 2002).

Jensen, Meg and Janet Ross. "Chilkoot Trail Operation, Summer 1977". Manuscript. KLGO Archives RG 02.07, F3, CAT 46416.

Kalen, Barbara. "Part of Chilkoot Pass Ship-Shape For Hikers," *Southeast Alaska Empire*. July 23, 1968.

Kirk, Robert C. *Twelve Months in Klondike*. (London, UK: W. Heinemann, 1899).

Krause, Aurel, and Arthur Krause. *To the Chukchi Peninsula and to the Tlingit Indians, 1881/1882: Journals and Letters by Aurel and Arthur Krause*. The Rasmuson Library historical translation series, v. 8. (Fairbanks, AK: University of Alaska Press, 1993).

Krause, Aurel. *The Tlingit Indians: Results of a Trip to the Northwest Coast of America and the Bering Straits*. Translation by Erna Gunther. (Seattle, WA: University of Washington Press, 1970).

Leach, Michael and Henry Hall. "The Chilkoot Trail: A Guide to the Goldrush Trail of '98". State of Alaska, Division of Lands, Department of Natural Resources. KLGO Archives RG 02.08, F1, CAT 47139, 1968

Leonard, John W. *The Gold Fields of the Klondike Fortune Seekers' Guide to the Yukon Region of Alaska and British America*. (London, UK: T.F. Unwin, 1897).

Moore, J. Bernard. *Skagway in Days Primeval: The Writings of J. Bernard Moore, 1886-1904*. (Skagway, AK: Lynn Canal Publishing, 1997).

National Park Service. *Cultural Resource Management Guidelines*, NPS-28, #4. (Washington DC: Govt. Printing Office, 1994).

National Park Service, *General Management Plan, Development Concept Plan and Environmental Impact Statement, Klondike Gold Rush National Historical Park, Skagway, Alaska and Seattle, Washington*. (Washington, DC: Govt. Printing Office, 1996).

National Park Service. *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. (Washington, DC: NPS, Cultural Resources, Interagency Resources Division, 1997).

National Park Service, *Final Resource Management Plan, Klondike Gold Rush National Historical Park*. (Washington, DC: Govt. Printing Office, 2000).

Neufeld, David, and Frank B. Norris. *Chilkoot Trail: Heritage Route to the Klondike*. (Whitehorse, Canada: Lost Moose Publ., 1996).

Norris, Frank B. and Carol Taylor. "Historic Structures and Sites: Dyea and the Chilkoot Trail" (Historic Structures Report), unpublished draft. (Anchorage, AK: National Park Service. 1985).

Norris, Frank B. and Karl Gurke, "The Tramway Story." Presented at the Society for Industrial Archeology Yukon Study Tour, 1990.

Norris, Frank B. *Legacy of the Gold Rush: An Administrative History of Klondike Gold Rush National Historical Park*. (Anchorage, AK: National Park Service, Alaska System Support Office, 1996).

Norris, Frank B. *National Register of Historic Places Registration Form for Chilkoot Trail and Dyea.* 1992.

Ogilvie, William. *The Klondike Official Guide: Canada's Great Gold Field, the Yukon District*. (Toronto: Hunter, Rose Co, 1898).

O.M. Leland, *Report of Work done in 1906 on the Alaska Boundary Survey*, March 26, 1907, in Energy, Mines, and Resources (Canada), files of International Boundary Commission.

Page, Robert, Cathy A. Gilbert, Susan A. Dolan. *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques.* (Washington D.C.: Cultural Landscapes Program, 1998).

Pranger, Hal "Taiya River Erosion Project Proposal", unpublished project description for erosion study at KLGO, 1996

Price, Julius M. *From Euston to Klondike: The Narrative of a Journey Through British Columbia and the North-West Territory in the Summer of 1898*. (London: S. Low, Marston & Co, 1898).

Quinn, James the III and Gavin Gardner. "Cultural Resources 2008 Summary Report". Klondike Gold Rush National Historical Park, Skagway, Alaska, 2008.

Rardin, Anya. "Cultural Resources 2009 Summary Report". Klondike Gold Rush National Historical Park, Skagway, Alaska, 2009.

Rardin Anya & Amber J. Yuellig. "Klondike Gold Rush National Historical Park Archaeological Clearance and Monitoring Report for the Ditch and Raise Project Below Finnegan's Point, Chilkoot Trail, Skagway, Alaska". Klondike Gold Rush National Historical Park, Skagway, Alaska, 2009.

Seattle Post-Intelligencer, The. Seattle, Wash. Terr. (Seattle, WA: Post-Intelligencer Pub. Co, 1888).

Secretan, J. H. E. *To Klondyke and Back: A Journey Down the Yukon from Its Source to Its Mouth*. (London: Hurst and Blackett, Ltd. 1898).

Shields, Michael D. "Trip Report - Chilkoot Trail, Klondike Gold Rush National Historic Park, August 7 – August 14 1978." DNR, Chilkoot Trail Files, General.

Snow, David E. *Chilkoot Trail Design Guidelines*. (Anchorage, AK: National Park Service, 1987).

Spude, Robert L. S. *Chilkoot Trail: From Dyea to Summit with the '98 Stampeders*. Occasional Paper No. 26, (Fairbanks, AK: University of Alaska Cooperative Park Studies Unit, 1980).

Streveler, G. "Behavior of the Nourse River System and Its Influence on the Taiya Valley: Summary of a Reconnaissance," (KLGO Archives, Unpublished Park Document, DOI/NPS, 1995)

Thornton, Thomas F., et. al. *Klondike Gold Rush National Historic Park: Ethnographic Overview and Assessment*. (KLGO: U.S. Dept. of the Interior, National Park Service, 2004).

United States, and Frederick Schwatka. *Report of a Military Reconnaissance in Alaska*. Senate executive document, United States. Congress. Senate, 48th Congress, 2d session, no. 2. (Washington: Govt. Printing Office, 1885).

United States, and L. A. Beardslee. *Reports of Captain L.A. Beardslee, U.S. Navy, Relative to Affairs in Alaska, And the Operations of the U.S.S. Jamestown Under His Command, While in the Waters of That Territory*. Executive document, no. 71, 1st Session, 47th Congress, (Washington: Govt. Printing Office, 1882).

U.S. Senate, *Proceedings from the Alaska Boundary Tribunal (1902-03).* 58th Cong., 2nd Sess., Part 1, Volume 2: Appendix to the Case of the United States. S. Doc. 162, p. 15.

Watson, J. "Chilkoot Trail Bridges Inventory" Draft Manuscript, (Anchorage Regional Office, 2001).

Watson, J. "J. Watson Interview" Interviewed by S.L. Ferreira, July 15th & 16th, 2003. Transcribed by L. Kadarauch.

Wyatt, M. P. Conservation Recommendations for Klondike Gold Rush National Historical Park, 1982

Correspondence:

Dutton, Lawrence A., Field Forester to Michael S. Leach, Acting Area Forester. "Chilkoot Trail Project" Memorandum: State of Alaska. DNR, CT General File 1, 1961-66. July 2, 1962.

Dutton, Lawrence A. to Michael S. Leach. "Chilkoot Trail Inspection Report" *Memorandum: State of Alaska.* DNR CT General File 1. 1961-66. July 5, 1963.

Hall, Henry to Michael S. Leach. DNR, CT File #1, 1961-66, Juneau. June 19, August 18, 19, 25, 1965.

Hanousek, Edward, Mayor to Governor William A. Egan. DNR, CT File #1 1961-66 and KLGO Archives, Chilkoot Trail Construction History File. September 14, 1966.

Kalen, Barbara D. to Mike Leach, DNR CT General File #1 1961-66, July 31, 1962.

Leach, Michael S., District Forester to A. Earl Plourde, State Forester. "Report of Chilkoot Trail Field Trip – Skagway." DNR, CT File #1 1961-66. May 23, 1961.

Leach, Michael S., Acting Area Forester to A. Earl Plourde, State Forester. "Season's Progress Report, Chilkoot Trail Project." DNR, CT File #1, 1961-66. August 28, 1962.

Leach, Michael S., Acting Area Forester to A. Earl Plourde, State Forester. "Chilkoot Trail Project." DNR, CT File #1, 1961-66. May 23, 1962.

Leach, Michael S., Acting Area Forester to A. Earl Plourde, State Forester. "Chilkoot Trail Progress Report." KLGO Archives, Chilkoot Trail Construction History File, July 23, 1962.

Leach, Michael S., Acting Area Forester to A. Earl Plourde, State Forester. "Progress, Chilkoot Trail Project" DNR CT File #1, 1961-66 and KLGO Chilkoot Construction History File. July 25, 1961.

Leach, Michael S., Acting Area Manager, to Bob Knox, *Anchorage Daily Times.* KLGO Chilkoot Trail Construction

History File. January 27, 1967.

Leach, Michael S., Area Forester to Phil R. Holdsworth, Commissioner. KGLO Archives, Chilkoot Trail Construction History File. May 19, 1964.

Leach, Michael S. to Bob Knox. DNR, CT File #2 1966-69, Juneau. January 27, 1967.

Leach, Michael S., to G. S. Troller, Paris. DNR, CT File #1, 1961-66, Juneau. July 18, 1966.

Leach, Michael S. to J. R. Lotz, Northern Research Officer, Northern Co-ordination and Research Center, Ottawa. DNR, CT File #1 1961-66, Juneau. May 24, 1963.

Leach, Michael S. Map entitled "Chilkoot Trail Project 1962." DNR, CT File #1, 1961-66.

Leach, Michael S. to Phil Holdsworth. DNR, CT File #1, 1961-66, Juneau. May 19, 1964.

Leach, Michael S. to Sigurd Olson. DNR, CT File#1, 1961-63, Juneau. Sept. 5, 1963.

Leach, Michael S, to Tom Murton. DNR, CT File #1, 1961-66, Juneau. April 5, 1963.

Leach, Michael S. Area Manager to W.R. Morrow, Director, Department of Corrections, Government of the Yukon Territory. March 19, 1968, Chilkoot Trail Construction History File.

Lotz, J.R., to Tom Murton. DNR, CT Trail File #1, 1961-66, Juneau. October 21, 1963.

Mehlert C. to Dorothy Varian. DNR, CT File #1, 1961-66, Juneau. April 27, 1962.

Morrow, W. R. (Whitehorse) to Michael Leach. DNR, CT File #2, 1966-69. March 7, 1968.

Pfeiffer, Charles W. to Dick White. DNR CT General Files, Juneau. June 7, 1961.

Plourde, A. Earl to Michael S. Leach. "Chilkoot Trail" DNR, CT File #1 1961-66, July 20, 1962.

Knox Collection:

*The following citations are from the Knox Collection, University of Alaska Anchorage Library, Special Collections. Numbers indicate series: box: folder;

Knox Collection, UAA. 9: 6: 14; Excerpt from *My Seventy Years*, by Mrs. George Black, Thos. Nelson and Sons, Ltd.

Knox Collection, UAA. 9: 6: 13; *Alaska Mining Record*, 6 September 1899.

Knox Collection, UAA. 9: 6: 11; *Alaska Searchlight*, 10 July 1897.

Knox Collection, UAA. 9: 6: 11; *Alaska Searchlight*, 14 Dec. 1895.

Knox Collection, 9: 6: 16; *Daily Alaskan*, 4 April 1900.

Knox Collection, UAA. 9: 6: 11; "F. Brewster Fay Letter from Sheep Camp." 27 March 1897.

Knox Collection, UAA. 9: 6: 1; Robert Knox.

Knox Collection, UAA. 9: 6: 2: Wilma Knox.

Knox Collection, UAA. 9: 6: 3; Richard White.

Knox Collection, 9: 6: 1; Robert and Wilma Knox, "Chilkoot: Alaska's Gold Rush Trail."

Knox Collection, UAA. 9: 6: 16: *The Dyea Trail.* 9 April 1898.

Knox Collection, UAA. 9: 5: 6; J.R. Lotz, Northern Research Officer. "The Chilkoot Trail To-Day: Dyea to Bennett." Northern Coordination and Research Centre, Department of Northern Affairs and National Resources, Ottawa, Canada.



The trail enters a cul-de-sac, climbing higher and higher. The valley seems to end; a precipitous wall of gray rock, reaching into the sky, seems to head off farther progress, seaming its jagged contour against the sky—a great barrier, uncompromising, forbidding—the Chilkoot Pass.

Tappan Adney, 1897